‘Let Them in on the Big Secret’:

An Examination of Explicit Teaching Behaviours in the Contemporary Classroom

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Declaration of Originality

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28 February 2018

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This thesis has been professionally edited by Dr Margaret Johnson of The Book Doctor, in accordance with the guidelines established by the Institute of Professional Editors and the Deans and Directors of Graduate Studies.

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Abstract

A perceived decline in the performance of Australian students has prompted questions about the effectiveness of the nation's classroom teachers. In particular, evidence from the Programme for International Student Assessment (PISA) 2009–2015, indicates a downward trend over a sustained period of time. Features of the associated discourse have been an emphasis on the efficacy of explicit instruction, concerns that an explicit teaching pedagogy is under-represented in the contemporary classroom, and the implication that teacher training and in-service professional learning should be adjusted accordingly.

A primary purpose of this study was to develop an approach to describe the explicit teaching strategies that upper primary school teachers use in the classroom. Such data provide evidence of the presence and nature of any deficiency that might require instructional intervention. The first step was to establish a clear understanding of the meaning of 'explicit teaching or instruction' as it is applied in contemporary commentary to describe a preferred approach to classroom instruction. The resulting construct (called the Explicit Teaching Construct) or framework was used in a mixed methods investigation to describe classroom practice, to compare the practices of individual teachers, and to compare practices in low socio-economic status (SES) and high SES classrooms.

Data collection was primarily conducted through observation of literacy lessons of twelve participants from nine different government primary schools in southern Tasmania, using a category observation instrument organised around 13 explicit instruction characteristics. The resulting data was organised into individual participant profiles after its quantification with reference to a three point scale of alignment, which compared individual teacher practice with a characteristic descriptor.

The analysis provided evidence of an established explicit teaching pedagogy across the participant cohort, with the greatest variation evident in the employment of high-impact

strategies that were strongly associated with positive learning outcomes. High and low SES students had a similar experience of explicit teaching with some variation between the cohorts noted in the use of high-impact strategies.

The capacity to accurately describe explicit instruction in terms of component strategies may have application in adding to the understanding of the set of teacher behaviours that best influences positive student outcomes and, feasibly, in sharpening any inquiry into those factors that influence the development of pedagogy generally, and skillsets specifically.

Glossary of Terms

Explicit Teaching	For the purposes of this study the term is interchangeable with 'explicit instruction' and refers to teacher-centred instruction in which the teacher provides learners with clear and detailed information about their learning that makes it transparent to them. It includes clear descriptions of behavioural and cognitive goals and outcomes (Luke, 2013).
Evidence-based	The literature that discusses educational programs and strategies with reference to research evidence of efficacy.
Cognition	For the purposes of this study this refers to the process of thinking, acquiring knowledge and understanding.
Conditional knowledge	Knowing when to apply learning (Anstey, 1998).
Construct	Specifically applied to this study, the framework of teacher behaviours that characterise an explicit teaching approach. The behaviours are organised to facilitate the description of individual practice.
Constructivism	A psychological theory that explains the way that people acquire knowledge and learn. It is generally, but not exclusively, used to describe a student-centred or discovery learning approach to teaching (Rowe, 2006).
Declaratives	Statements made by the teacher; providing information or directions with certainty; information presented as factual (Anstey, 1998).
Direct Instruction	When capitalised, this term refers to carefully designed and sequenced, scripted lessons presented by teachers following

	prescribed instructional practices. An initialised abbreviation, D.I. refers to the same usage. The term has sometimes been used interchangeably with 'explicit teaching', but more usually as a common noun, rather than capitalised (Luke, 2013).
Metacognition	Thinking about one's thinking. It is also described as 'thinking out loud'. More precisely it refers to the processes individuals use to monitor and assess their own understanding and performance (Muijs et al., 2014).
Primary School	The educational institution, generally for students aged from five to twelve years of age, enrolled in preparatory through Grade 6 in Tasmania. The mandated Australian Curriculum covers all these years. Most Tasmanian primary schools also have kindergarten and pre-kindergarten programs.
Procedural knowledge	Knowing how to do something; acquiring skills (Anstey, 1998).
Propositional knowledge	Knowing information, content, facts about a subject (Anstey, 1998).
Public Discourse	Discussion about teacher performance and student outcomes in the public media, including newspapers, television, radio and other digital and print sources. It includes data and data analysis related to national and international testing, and opinion.
Scaffolding	An interactional mechanism for supporting students to move beyond their current stage of learning. Support is initially intensive and then fades as students develop understanding. In the classroom, the teacher, peers and materials are the most common sources of scaffolding (Husband & Pearce, 2012).

Socratic Questioning A series of questions purposefully leading to understanding (Hattie, 2012).

ACARA	Australian Curriculum, Assessment and Reporting Authority
DoE	Department of Education (Tasmania, Australia)
ICSEA	Index of Community Socio-Educational Advantage
GRR	Gradual release of responsibility
NAPLAN	National Assessment Programme – Literacy and Numeracy
NLS	National Literacy Strategy (UK)
NNS	National Numeracy Strategy (UK)
PISA	Programme for International Student Assessment
RTBCTG	Raising the bar, closing the gap
SES	Socio-economic status
SRL	Self-regulated learning

Dedication

I dedicate this thesis to the two most influential and benevolent women in my life: my mother Jean Mary (Mulholland) Fuglsang and my wife, Kerry Diana (Barker) Fuglsang.

My mother escaped childhood poverty in rural NSW to live with her aunty in Sydney. During WW2 she served in the Women's Auxiliary Australian Airforce (WAAAF) at the headquarters of General Douglas MacArthur. She moved to Hobart, Tasmania, and secured employment as legal secretary to the eminent barrister and politician, William Hodgman, OBE, QC. Her admiration of accomplished and educated men and women inculcated in me, as a very young child, an aspiration to a university education.

My dear wife of over four decades has been unstinting in her support and encouragement of not only my own pursuits but those of our five children.

Without hesitation, she and my mother embraced the sacrifices in effort, time and money that strong families make in pursuit of quality education and the enhanced life opportunities that come with it. Their influence will shape generations.

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Chapter 1: Let Them in on the Big Secret

The main purpose of this study is to develop an approach to describe the explicit teaching behaviours that upper primary school teachers use in instruction. The first step is to establish a clear understanding of what is meant by the term 'explicit teaching or instruction' as it is applied in contemporary commentary to describe a particular approach to classroom instruction. The approach is presented as a construct or framework (hereafter called the Explicit Teaching Construct) and is then used in a mixed methods investigation conducted primarily through classroom observation to describe classroom practice in terms of explicit teaching, to describe similarities and differences in individual teacher behaviours as well as to describe similarities and differences in the behaviours of teachers in low socio-economic status (SES) and high SES classrooms.

This process is considered an urgent and necessary step in addressing problems relating to the persistent negative public discourse, which is discussed below. It offers a way of gathering information that describes current classroom practices about which judgements have been made and interventions promoted, largely on the basis of student performance data. It can provide a sound base from which to inform targeted intervention and reform. In addition, the detail and precision of the construct, when used to describe and compare the explicit teaching behaviours of individuals and of groups, provide a foundation for controlled inquiry into the exact nature of the explicit teaching repertoire that may produce the best student learning outcomes.

Some information is given here about the genesis of my interest in this subject, the specific view of explicit teaching adopted for this study, the relevance of the study and the structure of this thesis.

Background

Student talk. Many years ago, when I was a high school teacher, I occasionally heard students refer to a particular teacher as a 'good teacher'. This aroused my curiosity, and I asked them what it was about the teacher that made them feel that way. Most often the answer was along the lines of 'she or he explains things to you.' This seemed to be a reflection on the teacher's primary role in student learning. Other conceivable answers may have described the teacher as 'nice' or 'funny', terms of approval I had heard at other times, reflecting on the teacher's human qualities.

The high school students' comments represented very raw data in as much I did not think to explore their context. Too readily, I presumed the comments, usually about mathematics teachers, described the type of 'explaining' that clarified a concept not fully understood by the student: after all, mathematics is generally described as a 'hard' subject compared to others. In retrospect, a little more exploration might have revealed a much wider view of the things teachers do to help students make meaning of their learning. Nevertheless, the careless or casual talk of students informed my impressions of many colleagues, and especially of the two mathematics teachers who were consistently rated highly. Interestingly, the term 'good' was almost always used to refer to a teacher's ability to teach. Popular teachers were also described as 'kind', 'nice' and 'funny', but a 'good' teacher invariably was one who could explain the work.

High school students, unlike most primary school students, are generally in a position to make comparative assessments of the teachers they encounter. In the high schools in which I worked, which were typical of the local system, students were exposed to a range of different teachers in their core subjects (English, mathematics, science, social science and physical education) and optional subjects. Most primary school students' experiences, however, were dominated by their class teacher, or sometimes a team of two part-time

teachers. When my career took me to the primary sector, the talk about teachers that I heard was all about ‘liking’ and ‘not liking’ teachers, often associated with wonder and delight at novel or engaging learning experiences or resentment of correction, perceived unreasonableness or unfairness. I cannot recall any comments about relative instructional merit.

At that time I placed significant value on ‘explaining’ as a core teaching skill, having a personal liking and affinity for the metaphor of the teacher as a coach, promoted by the Paideia school of thought (Adler, 1982). Clearly the older students perceived teachers as possessing differing measures of the ability to explain. Edwards-Groves (1999), in discussing explicit teaching in the literacy classroom, used the phrase, ‘let them in on the big secret’ (p. 1), which brought to my mind the thought that schooling is very much like a rite of passage in which most children participate with very little understanding of the purposefulness of all the day-to-day routines and activities in which they engage. In particular, Edwards-Groves emphasised the social context of the literacy classroom and the enabling power of student and teacher talk. It is not clear what the exact nature of the teacher explanation was that drew such a positive appraisal from my students all those years ago; however, the relationship between ‘teacher explanation’ or explicit teaching and student learning outcomes drives this study.

Questions of performance. I became a primary school principal at a time when increasingly sophisticated data collections placed questions about teacher effectiveness at the centre of public discussions of compulsory education. Australia’s performance in the Program for International Student Assessment (PISA) invited a deep scrutiny of the performance of state schools, particularly in the areas of literacy and numeracy. At a national level, the National Assessment Program—Literacy and Numeracy (NAPLAN) provided a basis for an assessment of school performance relative to other schools in Australia, while at

a state level, Tasmania's Performance Indicators in Primary Schools (PIPS) testing allowed some relative assessments among the Tasmanian state school cohort. At both state and national levels the response was to focus on the efficacy of explicit teaching.

The improvement agenda, particularly with respect to literacy, acknowledged explicit teaching principles as fundamental to the pursuit of increased teacher effectiveness. The 2008 Learning Service South East Literacy Plan reflected the Tasmanian Department of Education (DoE) position with respect to improving literacy outcomes, identifying as it did quality teaching as the single most important school influence on a child's literacy achievement, and targeting the need for explicit and systematic teaching. Preparation for the implementation of the Raising the Bar, Closing the Gap (RTBCTG) compensatory program for socio-economically disadvantaged schools was a feature of the plan. The assessment of the program conducted by the University of Tasmania in conjunction with the DoE (Hay et al., 2011) recognised the importance in the implementation of the programme of a number of effective elements that notably included data driven decision-making, explicit teaching, evidence-based best practice, collegial learning and planning, targeted professional learning and instructional leadership.

The Australian Primary Principals Association (APPA), in collaboration with three universities and state and national agencies, developed the Principals as Literacy Leaders professional learning program for primary school principals (Dempster et al., 2012; Konza, 2015). Attracting wide participation from state, Catholic and independent school principals, including many from the DoE in Tasmania, its agenda included detailed instruction in explicit literacy teaching, a model of instructional leadership, and an evidence base for the principles being advocated. Since 2010, Federal support has facilitated the implementation of Direct Instruction programs in Western Australia, Northern Territory and Queensland in order to

address the performance gap between indigenous communities and the national average, particularly in literacy (Australian Council for Educational Research, 2013).

From where I stood as a school leader, the work of the classroom teacher and the use of explicit teaching practices had progressively become one of the most important foci in response to the public scrutiny of education, both nationally and internationally. Furthermore, the clear impact of socio-economic background on learning outcomes (Thomson, De Bortoli, & Underwood, 2016) influenced the targeting of low SES communities for instructional upskilling, particularly with respect to literacy. Some evidence indicates that diversity is an influence on the nature of classroom teaching that a student receives.

Socio-economic status was the subject of the Freebody, Ludwig and Gunn study (1995). The authors reported that in low SES classrooms explicit teaching of text and textual features was rare. They noted that teacher talk largely addressed behavioural and procedural matters. They cited significant evidence that explicit and systematic teaching was of particular benefit to early leaners. Other evidence, based on surveys of students about their classroom learning experience, also suggested that students from low SES communities were less likely to experience explicit teaching (Centre for Education, Statistics and Evaluation [CESE], 2014). These considerations, which are discussed later in this thesis, represent a persistent context in which to understand the relevance of this study.

Public Scrutiny

A reality for many education systems, including those of Australia, is the close public scrutiny of student outcomes, measured by system-wide and international standardised testing programs (Masters, Rowley, Ainley, & Khoo, 2008; Organisation for Economic Co-operation and Development [OECD], 2012; Thomas & Watson, 2011). This scrutiny, the attendant concerns, the subsequent focus on classroom practice, and much of the associated literature

addressing instructional improvement, all suggest that investigations of teacher practice in terms of explicit instruction are timely and relevant. The persistence and intensity of the scrutiny, a discourse that spans decades, has been sustained by the belief that global economic competitiveness is directly linked to the human capital represented by educational outcomes (Welsh & Freebody, 1993).

The prominent curriculum standards debate in Australia (Mills, 2008) mirrors the concern in many countries, including the United States, Canada and the United Kingdom. There is a strong and sustained perception in Australia that literacy and numeracy standards have fallen. Thomson, De Bortoli, Nicholas, Hillman and Buckley (2011) concluded, in their review of Australia's 2009 PISA results, that it was the only 'high performing' (p. 3) country to show a significant decline in reading literacy on the basis of comparisons with OECD averages. They also highlighted the increased number of countries outperforming Australia in mathematics. A review of the 2015 PISA results (Thomson et al., 2016) led to the conclusion that the performance of Australian school students, in all discipline areas, was in absolute decline. A sampling of the nation's newspapers reveals the twin themes of falling standards and the need for improved teaching as central concerns in the public discourse (see Appendix A: A Sample of Newspaper Reports Featuring the National Decline in School Performance).

Classroom Shortcomings

The response to these concerns often centres on the individual classroom teacher as the single most important influence on students' educational outcomes. Muijs and Reynolds (2011) observed that the importance of factors at the classroom level as a predictor of student outcomes is one of the key findings from decades of research into educational effectiveness. The view that the greatest variation exists between classrooms and not schools (Hattie, 2009) supports a case for detailed inquiry into the ways that individual teachers work within their

classrooms. Hattie claimed that ‘it is the differences in teachers that make the difference in student learning’ (p. 209), and that the variability between schools in most Western countries is far smaller than the variability within schools (Hattie, 2015). For example, the 2009 PISA results for reading across all OECD countries shows that the variability between schools is 36 per cent, but within schools is 64 per cent (OECD, 2010). Hattie (2015) concluded that ‘there are many causes of this variance within schools, but I would argue that the most important (and one that we have some influence to reduce) is the variability in the effectiveness of teachers’ (p. 1).

Close studies of classroom practices over a period of more than 20 years reveal ‘a yawning gap between the most well-known, incontestably essential practices and the reality of most classrooms’ (Schmoker, 2006, p. 2). Elmore (2000) described a ‘buffer’ or barrier that protects teachers, classrooms and schools from close scrutiny by the community, system and school administrators. When investigators such as Goodlad (1984), Little (1987), Allington (2001) and Popham (2004) surveyed classrooms, their findings conflicted with many common expectations. In fact, Schmoker (2006) concluded, ‘the vast majority of schools simply do not provide effective instruction’, and cited ‘busy work with no connection to important standards or a common curriculum’, absence of clearly stated objectives, infrequent assessment and feedback, and little evidence of careful modelling, sequenced steps and monitoring for learning and engagement (p. 15). The significance of these investigations was that they indicated that there was no certainty about what was happening inside classrooms. Hattie (2009) stated that

> for most teachers, teaching is a private matter; it occurs behind a closed classroom door, and it is rarely questioned or challenged … However short of unethical behaviours, and gross incompetence there is much support for the ‘anything goes’ approach.… herein lies a major problem (p. 1).

Many contemporary commentators, responding to perceived deficits in the performance of Western education systems, called for greater explicitness in the classroom in their reform agendas. Gambrell, Morrow and Pressley (2007) consistently advocated explicit instruction in their survey of best literacy practices. Rosenshine (2012), CESE (2014), Coe, Aloisi, Higgins and Elliot Major (2014), Archer and Hughes (2011) and Schmoker (2006) all promoted the case for highly explicit instructional practices. Hattie (2009) concluded from his meta-analysis of influences on student learning that feedback was fundamental to powerful instruction, along with a number of other key strategies of explicit instruction; while Hattie and Yates (2014) qualified the explicit nature of effective feedback and noted the comparatively high gain scores attributed to explicit teaching strategies as opposed to more student-centred strategies, generally described as the progressive discovery-constructivist (PDC) approach.

Despite the high profile that explicit teaching has had in the reform agenda over a long period, it is only relatively recently that Australian advocate Donnelly (2015) was prompted to declare that the 'tide is turning in education as traditional forms of teaching make a welcome comeback' (p. 22). Advocates typically draw on over 40 years of literature (Archer & Hughes, 2011; Hattie, 2009; Hempenstall & Buckingham, 2016), often citing the evidence from *Project Follow Through*, a large-scale federally sponsored initiative in the United States from 1968–9, evaluated by the Office of Education in 1970 and re-evaluated by House in 1978 (Watkins, 1997). Although the two evaluations produced varying conclusions, there was consensus that of the 22 instructional approaches evaluated in the project, an approach often considered synonymous with explicit instruction, Direct Instruction, produced superior outcomes. Perhaps the reliance on older research findings is an indicator that explicit teaching is a complex concept that is not easy to evaluate as a discrete facet of a teacher's practice.

The consideration of the relevant literature in the following chapter indicates the eclectic nature of the evidence that is cited in support of explicit teaching.

Explanation, Clarity, Explicit Instruction and Direct Instruction

The ongoing discourse about a perceived decline in student learning outcomes, the pedagogical shortcomings of the classroom, and the espousal of explicit instruction principles in response, gives rise to many questions. This study is primarily concerned with those questions to do with explicit teaching.

Whether or not student learning outcomes are in significant decline is irrelevant, if the notion of 'norms of continuous improvement' (Fullan & Hargreaves, 1991, p. xi) has currency in public education. The sheer volume of published research and the associated insights into the functioning of the human brain as we learn (Hattie &Yates, 2014) could reasonably generate an expectation that educational outcomes should be improving when in fact they are reported to be in decline. Considering the weight given to the development of a culture of 'data informed' and 'evidence-based' practice (CESE, 2014; Coe et al., 2014; Hattie & Timperley, 2007; Husband & Pearce, 2012; Muijs et al., 2014; Pashler et al., 2007; Rosenshine, 2012) it may be expected that data about existing classroom practice and the relative outcomes associated with specific iterations of explicit teaching would be of particular value.

Teacher explanation, an aspect of explicit teaching, sits well within at least two connected bodies of literature: that which is concerned with explicit teaching, also referred to as 'explicit instruction'; and that which is concerned with teacher clarity. Literature addressing explicit teaching (Anstey, 1998; Archer & Hughes, 2012; Hall, 2002; Hempenstall & Buckingham, 2016; Rosenshine, 2012) presents a number of perspectives of explicit teaching that tend to share a common body of underlying principles. Hattie and Yates (2014),

addressing the diversity of terminology that is often used interchangeably, including ‘direct instruction’, ‘explicit instruction’, ‘expository teaching’ and ‘active teaching’, concluded that this was generally unhelpful, given the commonality of core principles. Studies concerned with teacher clarity (Chesebro & McCrosky, 2001; Cruikshank, 1985; Simonds, 1997; Titsworth & Mazer, 2010), while on the surface appearing to align more precisely with the concept of ‘explaining’, also describe a set of recommended teacher behaviours, many of which are in common with those contained in the body of explicit teaching studies (see Table 1).

The ability to transmit ideas with clarity is one of a range of teacher behaviours that are featured in the literature, as will be discussed in Chapter 2. The teacher’s role in making meaning of their learning for students encompasses much more than the narrow view that may be taken of clarity. Explicit teaching may include a discussion of the purpose and real-world applications of student learning; provision of details of the learning process and how the achievement of learning is to be demonstrated; making connections to other learning, both within the learning area and across learning areas; and feedback about how students are progressing with learning tasks, what they are doing well and what they could do to better achieve learning goals (Anstey, 1998; Archer & Hughes, 2011; Hall, 2002). While the informational content transmitted in an explicit teaching approach is a significant feature, so is lesson structure (Rosenshine, 2012), the nature of questioning (Creemers & Kyriakides, 2006; Rosenshine, 2012), feedback (Hattie & Timperley, 2007), dialogue (Edwards-Groves, Anstey, & Bull, 2014; Wilkinson, Murphy & Binici, 2015) and the development of metacognition/self-regulated learning (SRL) in students (Muijs et al., 2014; Schraw, Crippen, & Hartley, 2006); all of which enhance the teacher’s role in making meaning for students.

It is important to establish early in this discussion that the view of explicit teaching taken in this study is quite distinct from Direct Instruction. Direct Instruction is one particular

example of an explicit teaching approach which includes a highly prescriptive and scripted teaching program, the reading component marketed as Reading Mastery, a part of the Scientific Research Associates family of materials now published by McGraw-Hill (Luke, 2013). Although the term Direct Instruction has in some instances, been used synonymously with 'explicit teaching/instruction' (Hall, 2002), there is generally a broader view of explicit teaching as discussed below. The contemporary evidence base for the effectiveness of explicit teaching tends to be less visible than the evidence drawn from the earlier studies such as that of Engelmann (1998) that directly relate to Direct Instruction, but are widely applied as evidence of the merits of explicit teaching. While research attention to explicit teaching as represented by the Explicit Teaching Construct is less evident, a number of early studies are relevant (Ashman & Conway, 1993; Porter & Brophy, 1998; Rosenshine & Stevens, 1986) and many of the Construct components such as feedback and clarity (Black & William, 1998; Hattie & Timperley, 2007; Seidel & Shavelson, 2007; Hattie & Yates, 2014) and metacognition (Zohar & David, 2008) currently attract considerable interest, especially in the context of literacy. The descriptive function of this study lays the foundation for further investigation into the relationship between specific explicit teaching repertoires and student learning outcomes. In this sense this thesis is also an initiatory study (Hesse-Biber, 2010).

Defining Explicit Teaching

Given that a range of meanings is applied to the term 'explicit teaching/instruction' in the literature, it is necessary to clarify the term for the purposes of this study. Here the term is used in a general sense consistent with the derivation of 'explicit' from the Latin 'explicitus', past participle of 'explicare', meaning 'unfolded' or 'set forth' (English Oxford Living Dictionary, 2018). A relevant generic definition for *explicit* is 'stated clearly and in detail, leaving no room for confusion or doubt' (Explicit, 2018).

While explicit teaching is often considered to be synonymous with ‘direct instruction’ and in that guise is often considered to be the antithesis of ‘discovery learning’ and of ‘constructivism’, it is a broader view that is taken in this study, in line with Luke’s (2013) explanation:

> In the field of education, explicit instruction refers to teacher-centred instruction that is focused on clear behavioural and cognitive goals and outcomes. These in turn are made ‘explicit’ or transparent to learners. Sociologist Basil Bernstein defined explicit instruction as featuring ‘strong classification’ and ‘strong framing’: clearly defined and boundaried knowledge and skills, and teacher-directed interaction. Explicit instruction is affiliated with but not limited to highly structured instruction in basic skills in early literacy and numeracy education. It is also used in Australian genre-based approaches to writing that stress the value of ‘explicit’ knowledge of grammar and all textual codes. (p. 1)

Edwards-Groves (2011) viewed explicit teaching as essentially the talk of classroom lessons. She presented the view that explicit teaching puts students in control of their own learning ‘by letting them in on the big secret’ (Edwards-Groves, 1999, p. 1). The ‘big secret’ includes information about why the work is being done, what it will involve, what will happen next, and how students will know they are succeeding. Her 1998 study explored the reconceptualization of the literacy classroom, promoting teacher understanding of the importance of purposeful, structured, explicit teaching through the use of lesson transcripts.

Formal compulsory education in Australia involves children spending around five hours of prime daytime over approximately two hundred days each year, for about a decade, participating in activities about whose purpose and context they may or may not have been given information. When they have received no relevant information, as implied by Edwards-Groves’ use of the term ‘secret’, could a child’s participation in their education be seen as an

act of compliance or perhaps a long slow rite of passage? Interestingly, recent research on how we learn suggests the latter may be the case, inasmuch as children are hard-wired to learn in social settings from adults (Csibra & Gergely, 2006); however, with the secret completely out of the bag through an explicit instructional approach, students receive information about the purposes and application of learning that is relevant and contextual, feedback about their learning that is formative and timely, and information delivery that acknowledges receptive language characteristics and cognitive match in an environment where processes are in place to effectively monitor their information needs.

The work of Anstey on explicit teaching in the primary literacy classroom (1993a, 1993b, 1998) was an important resource for this study. Through a fine-grained study of the literacy classroom, conducted through taking quantitative and qualitative perspectives, Anstey sought to develop an understanding of 'the influence of teacher talk and lesson structure on the construction of cognitive knowledge' (Anstey, 1993a, p. 1). Anstey was able to group lessons according to similar practices with the aim to describe those practices that promote metacognition. The resulting set of explicit teaching strategies produced by Anstey (1998) as a product of her research observations, offered a model for the development of a construct to serve as a classroom observational instrument.

A wider consultation of relevant literature, particularly that concerned with evidence-based best practice (Centre for Education Statistics and Evaluation, 2014; Coe et al., 2014; Hattie &Timperley, 2007; Husband & Pearce, 2012; Muijs et al., 2014; Pashler et al., 2007; Rosenshine, 2012) has allowed a process of refinement and elaboration, resulting in the Explicit Teaching Construct developed for this study (see Table 3).

To fully understand the view of explicit teaching that guides this study, three points of reference have been established: first, Luke's (2013) definition given above is inclusive of a broad viewpoint; second, Edwards-Grove's (1999) notion of the shared 'big secret'

introduces the overarching principle of students sharing an understanding of the purposefulness and connectedness of all aspects of the endeavour in which they are engaged; and third, the construct, developed with reference to the literature review, outlines those teacher behaviours that are generally agreed, across a wide range of relevant literature, to represent the characteristics of explicit teaching.

Relevance of the Study

Anstey (1998), around 20 years ago, described the same climate of political and media concern over falling standards that currently prevails. She cited the opinion of Martin and Rothery (1988) that 'one of the main failures of progressive education is its failure to be precise about the kinds of student/teacher interaction that will lead to learning' (p. 7).

Much of the commentary on the role of the teacher and explicit teaching is in the context of a western education system which is generally characterised by an accountability process based on system-wide standardised testing. As Mursell (1946) stated, 'the ultimate criterion for success in teaching is results' (p. 1). Schmoker (2006) took a view entirely consistent with this context, providing exemplars of successful practice, 'lighthouse schools' (p. 6), described in terms of measurable outcomes. For example, Bessemer Elementary demonstrated dramatic increases in the percentage of students achieving system benchmark standards in reading and writing, and Stevenson High excelled in performance on college entrance exams (2006, pp. 6–7). Similarly Louden (2015), reporting on a sample of high-performing Western Australian primary schools in the 2014 NAPLAN, noted the commitment across the schools to explicit teaching and direct instruction, including synthetic or blended phonics, a highly explicit approach to teaching reading.

Intertwined with a case for declining educational performance based on comparisons of mean scores is a perspective that uses the notion of minimum levels of achievement, or

benchmarks necessary to fully function in life and work. A strong connection has been made between functionality, human capital and economic competitiveness. Economists cite data from the 1996 International Literacy Survey and the 2009 Adult Literacy and Life Skills Survey (Shomos, 2010) to highlight the lack of progress in reducing the high level (approximately 50%) of the adult Australian population considered to be below minimum functional levels according to survey-specific criteria, in contrast to rates of benchmark failure of around 10% based on NAPLAN (Shomos, 2010). This perspective is particularly relevant when considered in conjunction with the theories of teaching and learning that underpin much of the advocacy for more explicit teaching: specifically, the literature emphasises the relevance of explicit instruction in the learning phases preceding the acquisition of fluency (Rowe, 2006).

There are strong indications that the capacity for explicit teaching has been a casualty of the contemporary classroom. Schmoker claimed that in the area of literacy, few students are shown how to 'read critically' (2006, p. 17), or are 'explicitly taught to progress from decoding to strategic reading' (p. 59); and writing is 'rarely taught explicitly in the average classroom' (p. 77). Schmoker discussed the distinction between the common practice of assigning and marking writing and the less common practice of explicitly teaching the craft of writing. While Schmoker reflected on American classrooms, Australian researchers such as Rowe (2006) voiced the same concerns about Australian classrooms. Louden's (2015) description of high performing schools in Western Australia suggested that explicit teaching was an important positive influence on learning outcomes. Hammond (2015) noted the gap between early childhood educators' perception of their own metalinguistic knowledge relating to the teaching of reading and the actual metalinguistic understanding required for effective teaching. However, these are generalisations, not always backed by comprehensive data. Explicit teaching is practised in some of the classrooms of those systems under

consideration. Researchers such as Schmoker (2006) and Gambrell, Morrow and Pressley (2007) drew upon cases of exemplary practice in order to illustrate the necessary reforms. As discussed under Classroom Shortcomings, building a precise knowledge of classroom practice is a challenge, especially in light of the deeply isolationist classroom culture that prevails. Yet understanding classroom practice is fundamental to the challenge of promoting improvement; it is a clear purpose associated with the descriptive dimension of the study.

While this study argues the merits of explicit instruction as a lens for describing classroom practices, a second challenge is that of extracting from a diverse literature a robust working definition that faithfully represents a contemporary construct. Edwards-Groves (1999), Anstey (1998) and Simonds (1997) each presented a construct of explicit teaching in the form of a repertoire of explicit teacher behaviours. However, nearly two decades of further investigation has provided the opportunity to reconsider and refine these constructs from the perspective of contemporary research with particular reference to the literature on evidence-based practice.

The discourse on the quality of classroom instruction suggests there is a continuum of teacher effectiveness, at one end of which maximum effectiveness is achieved through highly explicit instruction. The variability of classrooms, meaning first and foremost teachers, has been mentioned in this chapter with particular reference to the views of Hattie (2009, 2015) and Muijs and Reynolds (2011). While much of the commentary presented in the introduction reflects the American experience, Anstey's (1998) observations in the Australian context two decades ago noted the presence of a similarly wide range of instructional practice. The assertion that many of the attributes of established best practice are missing from the average classroom is supported by selective data such as that in *Learning 24/7* presented by Schmoker (2006). This is one aspect of a growing acknowledgement that much of what transpires in the classroom is invisible not only to the wider educational community but also to the classroom

teacher. Examples include Evertson and Harris's (1992) survey finding regarding the low levels of engagement associated with seatwork: that is, students working at their desks; Yair's (2000) finding that up to 40% of students are disengaged in the classroom; and Nuthall's (2005) notion that students' 'procedural display' keeps most teachers 'ignorant of what most of the class knows or understands' (pp. 919–912). The low levels of relevant questions and feedback in some classrooms, and the importance of these mechanisms in teacher monitoring, are discussed in the next chapter.

This study does not address the questions of quality discussed above, in as much as it does not venture into any evaluation of the effectiveness of the participants observed in the study, either individually or collectively. However, the clarification of explicit teaching in order to describe contemporary teacher practice lays the foundation for an initiatory facet to the study: the investigation of the comparative outcomes of a range of iterations of that approach.

Purpose of the Study

The specific purpose of this study is to describe the classroom practice of a cohort of teachers in terms of explicit teaching. An observational tool yields both quantitative and qualitative data that can be used to create profiles of individual teachers' practices and to observe diversity or commonality of practice. The samples from low and high SES schools are separately reviewed for evidence of variations in explicit teaching practices. The development of an efficient profiling process may facilitate future investigations of the relative effectiveness of particular explicit teaching repertoires, and has the potential to add to the body of evidence about different contributions of various strategies. A wider application of the tool and the methodological approach to the analysis of data may yield a clearer picture of how teachers work in their classrooms and result in a better informed public discourse.

Further, the use of data describing explicit teaching practices has consistently been reported as effective in bringing about change in teacher practice (Alexander, 2017; Edwards-Groves, 1998; Flanders, 1961).

The selection of a single subject, in this case literacy (English), as the primary focus of the study allows for a tighter focus and therefore a more manageable area of research in this investigation. Literacy has had a particularly high profile in the ongoing discourse concerning standards and student outcomes (Anstey, 1998; Edwards-Groves, 1999; Thomson, De Bortoli, Nicholas, et al., 2011). Compensatory funding programs invariably target literacy (Fisher, Brooks, & Lewis, 2002), a specific example being the RTBCTG in Tasmania (Hay et al., 2011). The choice of literacy lessons for observation avoids questions of variations in teacher practice across subject areas, as it cannot be assumed that teacher practice does not vary according to the subject being taught; some evidence suggests there are different practices in different subject areas (Campbell et al., 2003).

The use of literacy lessons aligns this study with its context: the discourse on educational standards and teacher effectiveness, which more often than not focuses on student performance in the area of literacy. It may also be argued that literacy takes a priority position in the school curriculum. In the Australian Curriculum, literacy is one of the seven General Capabilities (Australian Curriculum, Assessment and Reporting Authority [ACARA], 2016). Priority is also partly evident in the preferential allocation of instructional time, which was comprehensively illustrated by the practices of the twelve participants in this study. Generally, literacy was timetabled daily in a block of an hour or more, in the morning. Mathematics was also usually timetabled daily in the morning, generally for less time than literacy over the week. Other subjects, such as science and history were held less frequently and usually in the afternoon.

Some literature consulted does address literacy directly, including early literacy learning; other literature dealing with other subject areas, such as the research addressing metacognition and SRL in Science, was also consulted. Much of the literature treats explicit teaching and its associated individual strategies generically: that is, without reference to a particular subject or grade level (Archer & Hughes, 2011; CESE, 2012, 2014; Hattie, 2009; Marzano, Pickering, & Pollock, 2001; Rosenshine, 2012). The evidence discussed in the Literature review in Chapter 2 points to the generic nature of the Explicit Teaching Construct and suggests it has implications for a far larger arena than the literacy classroom.

Nevertheless, as an initiatory study, the use of literacy offers a guide for further studies, with the advantage that considerable attention has been paid to the collection of student performance data in the area, from the individual school level to the global level, facilitating judgements about effectiveness.

Three questions are posed and associated actions have been generated:

1. How can explicit teaching practices in literacy lessons of primary school teachers be described?

Action: Develop a set of operationally defined teacher behaviours for the purpose of describing classroom practice in terms of explicit teaching in literacy in a sample of southern Tasmanian schools.

2. What similarities and differences in explicit teaching practices are evident in the study sample?

Action: Develop an approach for profiling individual teachers' explicit teaching practices in literacy.

3. Are there differences in the explicit teaching of literacy in low SES and high SES primary school classrooms?

Action: Compare the explicit teaching practices in literacy lessons of low SES and high SES primary school teachers in the study sample.

Thesis structure

This introduction, through reference to personal experience, the persistent public discourse and relevant literature, presents a case for the authenticity and importance of this study. Chapter 2, the literature review, provides a review of the literature to address a number of purposes: first, to clarify the context of the study through an overview of research into explicit teaching, a discussion of the nature of the concept of 'explicit teaching/instruction' and its relationship with learning theory and the role of the teacher, and of the evidence that underpins the advocacy for explicit teaching pedagogies; second, to clarify a construct or framework for the study's data collection and the development of a set of Explicit Teaching Characteristics for observation; and finally, to undertake a technical investigation of individual characteristics that will provide pointers to differentiate individual practices.

Chapter 3 describes the methodology that is developed to address the purposes of this study, including theoretical considerations, the selection of participants, instrumentation, the processes involved in the collection of data, and the approach taken to data analysis. Chapter 4 presents the results of the analysis, providing descriptions of each participant's practice, noting similarities and differences across the participant group, and offering indicators of validity and of patterns resulting from the comparison of the two SES teacher cohorts. In Chapter 5, the results are discussed with reference to the study's core questions. Central to the discussion are questions about the utility of the construct (Explicit Teaching Construct) developed specifically for this study and the related processes used in the study.

The final chapter of the thesis, Chapter 6, provides a summary of what has been learned from the study and acknowledges both its descriptive and initiatory functions. As the

relationships between many aspects of explicit teaching and students' outcomes are unclear and their connections with optimal teacher approaches uncertain, it recommends areas in which further investigation may be fruitful.

Summary

This introductory chapter describes the ongoing public discourse in Australia and elsewhere that, at its heart, advocates improved teacher performance in the classroom through a more thorough implementation of explicit teaching methodologies, to redress a decline in student learning outcomes evidenced by the results of national and international standardised testing.

Against this background, elements of the researcher's experience as a curious high school classroom teacher and primary school principal are related, and the idea that children might benefit from having a full understanding of what they are doing at school is discussed.

The concept of explicit teaching is clarified and it is reasoned that clear information about the explicit teaching strategies used by teachers in their classrooms would be valuable, and it is asserted that explicit teaching can be represented by a set of teacher behaviours or characteristics which, to various degrees, are discrete. It is also suggested that a process that profiles teachers in terms of explicit teaching might be valuable in determining more precisely which elements of explicit teaching in combination represent best practice in terms of student outcomes. For example, could it be rigorous attention to all the prescribed components that are associated with Direct Instruction that produces the best results? Is there a core set that does as well, or do key characteristics such as feedback, clear learning intentions or a carefully sequenced curriculum account for the effectiveness reported for explicit teaching?

The key questions addressed in the study are introduced and the thesis structure outlined. The next chapter provides a review of the relevant literature in order to provide a clear context for the study and instrumentation for the purposes of data collection and analysis.

Chapter 2: Literature review

This chapter endeavours to draw together a wide range of views of explicit teaching in order to establish a coherent concept that provides a working definition for this study and its implementation. The chapter opens with a review of studies that address explicit teaching and lay a foundation for the more recent literature that shapes the Explicit Teaching Construct. The working definition for explicit teaching is reviewed and clarification regarding Direct Instruction provided. The effectiveness of explicit teaching is discussed in relation to a model of teaching and learning and the implications for the role of the teacher in an explicit classroom are then described. The discussion in this chapter reveals that beneath the generalised principles of explicitness can be found a raft of organisational and pedagogical behaviours that may be presented in a construct or framework that best represents the nature of explicit teaching for the purposes of investigating classroom practice. These behaviours are referred to as the Explicit Teaching Construct for the purposes of this study. The primary data gathering instrument, the Explicit Teaching Characteristic Set, guides the collection of classroom observational data and is drawn directly from the construct; but the analysis of the data depends on establishing an understanding of the range of strategies, or more accurately the tactics and processes, that may be observed in relationship to each observational characteristic. For this purpose, once the development of the Construct is described, this literature review discusses the range of behaviours associated with each characteristic and any evidence of their relative effectiveness or value. This attention to detail facilitates fine discrimination when comparing and contrasting individuals' explicit teaching practices.

An Overview of Research into Explicit Teaching

The meta-analyses, summaries and policy statements that represent the view of explicit teaching addressed in this study are strongly connected to a tradition of collecting data about

teacher classroom behaviour for the dual purposes of establishing any effect on student learning outcomes and influencing the development of teacher skill.

The Merit Study of Provo City Schools conducted from 1958 to 1961 was an attempt to quantify the qualitative aspects of teacher classroom behaviour with the expectation that more effective patterns would be distinguished from less effective patterns (Flanders, 1961). Collaboration between classroom teachers and researchers to refine teacher practice was a fundamental element of the project (Hughes, 1958).

Flanders (1961) developed an approach to describing and evaluating teacher classroom behaviour that was called 'interaction analysis.' The approach, trialled over a six year period in Minnesota and in New Zealand, collected data through observer classification of verbal statements in the classroom, student attitudinal data from written surveys and student learning outcome data from system-wide testing. Clear differences were observed between teacher practices in superior and inferior performing classrooms. These differences emphasised the importance of the teacher's role in questioning, clarifying and developing student ideas. The researchers noted the usefulness of the approach as a training device.

Ethnomethodological studies focussed on conversation analysis, usually of transcripts of classroom conversation, provided important insights into the nature of teacher practice. Classroom conversation was accepted as the principal element of the pedagogical process. Edwards-Groves reflects this emphasis with her observation that, "talk is both a vehicle by which teachers get the work done and the point of curriculum delivery (1998, p.75).

Edwards-Groves' micro analysis of lesson structure, student/teacher interactions and the composition of student teacher talk in middle primary literacy classrooms (1998) provided a basis for a 'collaborative-analytic' approach to professional learning. Transcripts of actual practice provided the focus for review. The targeted outcome for participants was an understanding that literacy learning events were best conceptualised as "focused learning

episodes" (p.v) characterised by explicit and structured instruction that included an explicit focus, clear articulation of the new learning, clear information about purpose and learning tasks, regular review that linked aims and outcomes for students, and showed what had been learned and what needed to be retaught. The study reported favourable results in terms of changed teacher practice through self-analysis by transcript.

The combination of research into teacher/student classroom interaction and the use of transcript in professional learning persists in projects associated with dialogic talk (Alexander, 2017). This is a further example of the strong trend that has emerged to apply the observation tools that provide the data confirming the influence of classroom dialogue on student outcomes to the professional learning of classroom teachers. The work of the Cambridge Educational Dialogue Research Group (Howe, Hennessy & Mercer, 2018) included the development of *Scheme for Educational Dialogue Analysis* (SEDA) and the *Teacher Scheme for Educational Dialogue Analysis* (T-SEDA), the latter in use (2018-2019) in a project to develop the classroom dialogue practices of classroom teachers (Vrikki, et al., 2018).

Research into effective teaching has been regularly associated with a suite of explicit teaching strategies (Ashman & Conway, 1993; Porter & Brophy, 1988; Rosenshine & Stevens, 1986). A prelude to the later work of Rosenshine, influential in the development of the construct of explicit teaching adopted for this study, was the synthesis of the elements of effective teaching produced by Rosenshine and Stevens (1986). Those elements included: previous learning preview, clear goals, content and lesson structure overview, demonstration, working through examples, guided practice, independent student practice, questioning, feedback, correction and review. Similarly, a survey of the research on good teaching conducted by Porter and Brophy (1988) identified clear instructional goals, clear expectations

for students and reasons for the learning, monitoring, regular feedback, metacognition and lesson content addressing higher and lower cognitive objectives.

The importance of the teacher's role in actively providing systematic and explicit instruction, in order to achieve satisfactory student outcome is supported by a substantial body of research literature. The trend to focus on the literacy classroom is illustrated in the studies of Adams (1990), Baker and Freebody (1988), Braggert (1996), Frieberg and Freebody (1995), and Stahl and Miller (1989).

Akin to this work is the study of classroom interaction between teacher and students. Sinclair and Coulthard (1975) developed a model for the analysis of classroom discourse, originally referred to as the Initiation-Response-Follow up (IRF) model and directed towards teacher and student roles in communication and the teacher's language choices. A modified model, developed from the IRF model, became known as the Initiation-Response-Evaluation (IRE) model (Cazden, 2001; Mehan, 1979). This area of investigation, teacher/student dialogue, has been the subject of regular attention (Alexander, 2008, 2017; Cazden, 2001; Hardman, 2015; Mehan, 1979; Mehan & Cazden, 2015).

Interest in the area has been motivated by the established relationship between language and thought (Alexander, 2017). The term dialogue or dialogic talk has been applied to the evidence-based role of the teacher that has emerged from the research (Alexander, 2000; Wilkinson, Murphy & Binici, 2015). Dialogically induced learning depends on the development of specific teacher skills, which include interactive organisation, teacher talk, questioning, extending dialogue and promoting student learning talk (Alexander 2017).

The positive outcomes reported include the promotion of joint communication and productive, rational, reflective thinking (Alexander, 2000). Sizeable gains in learning have been associated with high quality classroom discussion (Wilkinson, Murphy & Binici, 2015). Classroom dialogue was found to improve student learning outcomes in English and

mathematics, as well as attitudinal measures, when three features were present: elaboration, querying and student participation. However, the presence of elaboration and querying were generally found to be a prerequisite to an influence from student participation (Howe, Hennessy & Mercer, 2018).

Interest in classroom interaction was reflected in a national initiative in the United Kingdom with the launch of the National Literacy (NLS) and Numeracy Strategies (NNS) in successive years, 1997 and 1998 respectively. The initiatives supported subject based whole class instruction, a shift from cross curricular group instruction, and featured a requirement for a 15 minute whole class interactive session (discourse episode) in each lesson (Smith, Hardman, Wall & Mroz, 2004). Myhill (2006) conducted a two and a half year study of the discourse episodes to investigate how teachers used talk to develop and build on student learning. In particular the study considered how teachers used questioning, built on prior knowledge and developed students' independent learning capacity. The study adopted a strong Vygotskian perspective with scaffolding as the fundamental learning process and the dialogic classroom (Alexander, 2000) as the environment in which talk fosters thinking. In part the study evaluated the degree to which the NLI and NNI had been successful in repositioning the teacher as the 'enabler of talk for thinking' (Myhill, 2006, p21).

The study concludes that discourse patterns remained similar to those prior to the intervention. Relatively little classroom interaction supported and scaffolded children in their learning. The survey of questioning revealed only 3% of questions addressed prior knowledge and 8% captured concepts from prior lessons, a small investment in the positioning of students for effective scaffolding. Cognitive and conceptual connections were often ignored in the classroom dialogue. The teacher continued to exercise strong control over classroom interaction with questions that largely required closed and factual responses. Consequently, the pattern of discourse most commonly comprised an initiating question from

the teacher and a concluding response from the student. In common with the findings of other studies (English, Hargreaves & Hislam, 2002) the average student response comprised three to four words (Myhill, 2006).

A number of features of the study typify emerging themes in the study of classroom interaction: Myhill (2006) identifies the involvement of teachers in active/collaborative research as an underpinning study principle; an action research model comprising a cycle of planning, action, investigation and evaluation. The study takes a multi-dimensional approach to data collection, not only with respect to instrumentation, but also in the use of quantitative and qualitative data. In common with similar studies discussed above, the observational data becomes the stimulus for teacher planning in the context of an accepted theoretical foundation.

Of particular relevance to this study is the work of Anstey (1993a) associated with her study of the relationships between teacher talk, lesson structure and materials in the promotion of metacognitive skills in the literacy classroom. Based on the premise that metacognition is a critical element in student learning, in a climate of 'controversy regarding most effective practices' (p.4), Anstey sought to describe the best practices for enhancing metacognitive learning as a guide for teachers, teacher educators and professional learning providers. Anstey asserts, 'There is a need to be more precise about the kinds of teacher-student interaction which leads to such learning' (p.5). Through a multiple perspective analysis of 25 lesson observations, three distinct groups of lessons emerged, described by organisational phase and teacher talk characteristics. The group that best exemplified enhanced metacognitive learning comprised only three lessons; the prototypical metacognitive lesson was characterised by logical phase structure, practice and review of new information, explanations of process and utility, declaratives, cognitive/metacognitive talk and the fostering of metacognitive skills organically within the lesson, rather than through

discrete programmes and specialist teachers. The characteristics subsequently provided the basis for a model of explicit literacy teaching (Anstey, 1993b, 1998).

Multiple foci, including differentiating teaching styles, cognitive aspects of teacher talk and the structures of lessons, provide both quantitative and qualitative data. Clearly aligned with a Vygotskian view of learning, the emphasis placed on language and dialogue in the study is underpinned by the prominent roles these features play as the means by which transactions take place in zones of proximal development. In general Anstey (1993a) found that teachers provided little cognitive information and while she was able to describe a range of teaching styles, Anstey found only three lessons that exemplify practices that promote metacognitive learning. It might be asked whether the description of practices that enhance metacognition may not have been drawn from the literature as adequately and perhaps more accurately as from observational data'; however, the observations do provide support for the shift in thinking that occurred in the field about how metacognitive skills might best be developed in students. That shift was from a position where metacognition was largely addressed through specially designed courses presented by trained instructors to one where the learning was embedded in normal lessons (Anstey, 1993b).

Both Anstey's (1993a) study and the later study of Myhill (2006) employed mixed methodology and relevant classification tools such as categories of talk and questions to differentiate teacher practices. The studies describe teacher practices in the context of preconceived views of effective teaching, generating data that might be used for professional learning in an action research model. The Myhill study is faithful to and consistent with the dialogic classroom tradition that both preceded and followed it (Alexander, 2008; Cazden, 2001; Coulthard, 1975; Hardman, 2015; Mehan, 2015). The Anstey study takes a broader view of the classroom with attention to structure, in much the same way as the later Edwards-Groves study (1998).

The Working Definition of Explicit Teaching

The report, *What works best: Evidence-based practices to help improve NSW student performance* (CESE, 2014), features seven themes, including explicit teaching and 'effective feedback', and cites Hattie's (2009) definition of explicit teaching:

> The teacher decides the learning intentions and success criteria, makes them transparent to the students, demonstrates them by modelling, evaluates if they understand what they have been told by checking for understanding, and retelling them what they have been told by tying it all together with closure (p. 206).

Chapter 1, Defining Explicit Teaching, refers to three points of reference that help define the view of explicit teaching that informs this study. The congruence of Hattie's definition above with that of Luke (2013), the first point of reference, is clear. The second point, Edwards-Grove's (1999) notion of the shared 'big secret', accords well with the idea of transparency offered by both Hattie (2009) and Luke (2013); it argues that many if not all of the characteristics of explicit teaching serve to create the necessary clarity for learning. The third point, the Explicit Teaching Construct, is a synthesis of a wide range of literature that identifies teacher behaviours that are generally agreed across a range of relevant literature, to represent the characteristics of explicit teaching.

The term explicit teaching is used interchangeably with the term explicit instruction in much of the literature. It is the preference in this study to use the former term, explicit teaching, to emphasise the role of the teacher in the classroom. This term transcends the limited view of explicit teaching represented by the easily confused terms "direct instruction' and 'Direct Instruction', the more prescriptive approach (Luke, 2013).

Direct Instruction and Explicit Teaching

The interchangeability of the terms ‘explicit instruction’, ‘direct instruction’ and ‘Direct Instruction’ has been noted in Chapter 1. The use of ‘Direct Instruction’ as a synonym for ‘explicit teaching’ appears to be associated with the approach’s contribution to the evidence for the efficacy of explicit instruction (Engelmann, 1998). Luke (2013) recognised the usefulness of making a distinction between the terms. The nature of Direct Instruction and direct instruction as examples of explicit teaching are considered here, as well as the importance of Direct Instruction as a contributor to the evidence base for the effectiveness of explicit teaching principles.

Rosenshine and Furst (1971) (as cited in Simonds, 1997) identified explicit teaching as the ‘most promising teacher-effects variable’ (p. 280), while a contemporary study by Engelmann (1998) of the results of *Project Follow Through*, an extensive trial of a number of instructional approaches, found that Direct Instruction produced superior learning outcomes to the other instructional approaches. During this period the terms ‘direct instruction’ and ‘Direct Instruction’ (without and with capitals) were sometimes used interchangeably with the term ‘explicit teaching’. However, when not capitalised, the term has applications that are significantly different from one another. At one level it refers to ‘didactic teacher-led talk from the front’ (Hattie, 2009, p. 204) and at another is simply interchangeable with explicit teaching. Capitalised, it refers to carefully designed and sequenced, scripted lessons presented by teachers following prescribed instructional practices (Association for Direct Instruction, 2012), originally developed and applied by Engelmann and Becker from 1969 to 1972 as a part of *Project Follow Through* (Engelmann, 1998). A third usage describes the application of the underlying instructional practices outlined by Adams and Engelmann (1996) without the highly prescriptive scripted programs of Direct Instruction. The large effect sizes reported by Hattie (2009) invariably refer to evaluations of the formal Direct Instruction program

when the contributing meta-analyses are scrutinised. The underlying set of principles, central to Direct Instruction and significantly related to student achievement (Rosenshine, cited in the National Institute for Direct Instruction, 2015), are of relevance to the current discussion of an Explicit Teaching Construct.

Hattie (2009) identified seven elements at the heart of Direct Instruction pedagogy: clear learning intentions; established success criteria communicated to students as standards of performance; a 'hook' to build student commitment and engagement; the lesson presentation by the teacher featuring input, modelling, checking for understanding and student practice; guided practice under teacher supervision with timely feedback; lesson closure with consolidation and clarification; and independent practice for reinforcement. These elements, drawn from a strongly validated teaching approach, correlate strongly with the essential elements drawn together in the Explicit Teaching Construct. The obvious point of difference with the Explicit Teaching Construct is Direct Instruction's commercially sourced, scripted teaching materials. That difference raises questions about the relevance of the evidence of Direct Instruction's effectiveness when applied to the broader concept of explicit teaching.

Teaching and Learning Theory

The coherence between the explicit teaching construct adopted in this study and the Vygotskian explanation of how humans learn is evidence of the legitimacy of the study. Hattie and Yates (2014) considered the evidence relating to the way humans learn and to how the human brain functions, and conclude that children are naturally predisposed towards learning directly from adults. Csibra and Gergely (2006) present a speculative hypothesis about evolutionary adaptations in humans for pedagogy, based on evidence from developmental psychology. Drawing on this evidence they describe five critical learning

principles that may explain the predisposition of children to learn from adults and confirm the appropriateness of explicit teaching:

1. Cooperativity Principle—adults transmit information to children even at a cost to themselves. In other words there need not be an extrinsic reward for the adult;
2. Ostension Principle—adults demonstrate skills to children;
3. Relevance Principle—learning situations are usually goal-directed, being purposeful and relevant;
4. Omniscience Principle—mature community members store knowledge and share it with community members;
5. Public Knowledge Principle—there is a large body of knowledge which is understood to be public and universal and therefore needs to be transmitted, language being an example.

Such an understanding underpins the importance of the teacher-centred role evident in explicit teaching models. Proponents of explicit teaching commonly find alignment between teaching and learning theory and Vygotskian theory (Wilkinson, Murphy & Binici, 2015; Alexander, 2017). Vygotsky's constructivist model of learning (Chalkin, 2003) provided both an explanation of the effectiveness of an explicit teaching approach and a justification for it. The features of scaffolding, which are discussed below, are easily translated into key explicit teaching characteristics such as the establishment of learning intentions, monitoring, feedback, questioning and dialogue, and the Gradual Release of Responsibility (GRR) model, which is also discussed below.

It is necessary to disregard the use of the term 'constructivism' as a label for student-centred learning. Rowe (2006) argued that the misapplication of constructivist principles as a theory of self-directed learning was detrimental to effective teaching; and Center (2005) and Farkota (2005) asserted that such an application of constructivism was best neither for the

initial phase of learning nor thereafter, while Wilson (2005) argued that the more appropriate translation of constructivism into teacher practice required vigorous and systematic teacher intervention in student learning.

While constructivism and Vygotsky's 'Zone of Proximal Development' (Chalkin, 2003) are confirmed in studies of cognition as accurate descriptions of how learning takes place, it is the application of the scaffolding theory promoted by Brown and Campione (1994) that, according to Kirschner, Sweller, and Clark (2006) satisfies the instructional implications of cognitive research. Pressley and McCormick (cited in Wilkinson & Silliman, 2000) describe a scaffold as an interactional mechanism for learning and development. The importance of scaffolding was emphasised by Husband and Pearce (2012), who in their review of researched strategies that produced 'great' pedagogy, included building on pupils' prior learning and experience, and scaffolding pupil learning. In relation to the former they cite Vygotsky:

> What the child can do in cooperation today he can do alone tomorrow. Therefore the only good kind of instruction is that which marches ahead of development and leads it…. For a time, our schools favoured the 'complex' system of instruction, which was believed to be adapted to the child's way of thinking…. In offering the child problems he was able to handle without help, this method failed to utilise the zone of proximal development and to lead the child to what he could not yet do. (p. 7)

Evidence from the decade long *Teaching and Learning Research Project* (TLRP) about the importance of building on prior learning is supported by the psychological literature on meaning-making and emerging evidence from the field of neuroscience (James & Pollard, 2011).

On the matter of scaffolding, Husband and Pearce (2012) stated that 'constructivist theories tend to be dominant in research, with an emphasis on the importance of discussion,

dialogue, the social context of learning and teachers' ability to scaffold pupils' learning beyond their current stage of understanding' (p. 7). Kim and Hannafin (2011) described three effective sources of scaffolding: peer, teacher, and technology. Relevant to this thesis, teacher scaffolding supports students in monitoring their own progress, making revisions, maintaining focus, refining strategies and investigating evidence. Kim and Hannafin also discussed scaffolding that focuses on process-oriented rather than content-oriented learning in which, typically, processes applied to problem-solving support learner development. Their discussions were in the context of the science classroom, but in the literacy classroom processes are also important. The common narrative writing process, sequentially addressing setting, complication (problem) and resolution (solution) provides an example of process-oriented scaffolding. The classroom studies of Puntambekar and Kolodner (2005) resulted in the identification of five features that were central to effective scaffolding for learning: 'a common goal, ongoing diagnosis, dynamic and adaptive support, dialogues and interactions, and fading and transfer of responsibility' (p. 8). This summary of the features of scaffolding has a strong resonance with the Explicit Teaching Construct. ,

The explicit teaching approach was strongly connected to the GRR model of teaching (Pearson & Gallagher, 1983). Teachers provided graduated assistance to learners through dialogue and non-verbal supports to help them achieve higher levels of conceptual and communicative competence. With respect to graduated assistance within a model of gradual release of responsibility, Roe, Smith and Burns (2009) observed that explicit teaching activities were denser at the outset, with guided practice providing a transition to independence for the student armed with meta-cognitive strategies for self-monitoring.

It should be noted that there is a body of opinion that neither explicit teaching nor a student-centred constructivist approach alone is appropriate for promoting all types of learning (Purdie & Ellis, 2005; Westwood, 2006). Rowe (2006) claimed that 'the relative

utility of direct instruction and constructivist (student-centred or discovery) approaches' to teaching and learning are 'neither mutually exclusive nor independent' and that 'the problem arises when constructivist (student centred) learning activities precede explicit teaching or replace it' (p. 14). This is consistent with a view of learning in which responsibility shifts from teacher to student as student understanding and competence increases.

Attention to the definition of explicit instruction and the clarification of its relationship with Direct Instruction allows the conceptualisation of explicit teaching to reflect the use of the term in the contemporary discourse. The Explicit Teaching Construct, drawn from a broad survey of the literature, is an expression of that conceptualisation, and serves as an operationalisation of the concept as a framework, the Explicit Teaching Characteristic Observation Set.

The discussion of explicit teaching in the context of a theory of teaching and learning emphasises the importance of lesson structure and the GRR model within the Explicit Teaching Construct, and explains the roles of the characteristics in scaffolding student learning. The discussion in The Role of the Teacher section below, serves to define the types of teacher behaviour that positively affect learning outcomes for students. The selection of the characteristic set of behaviours follows the consultation of a wide range of relevant literature which also provides details of the specific organisational and pedagogical behaviours of the teacher that might be observed when a characteristic is in place. The literature that has been cited with respect to these characteristics provides substantial support for the inclusion of the characteristics, particularly when it provides an evidence base.

The Role of the Teacher

In their discussion of the role of the teacher and the nature of learning, Hattie and Yates (2014) claimed that improvements in teaching included the quality of student talk and teacher listening. They emphasised the importance of the teacher role, clarifying the term 'didactic

instruction' to more properly represent the active teaching of ideas and the relationships between them, as opposed to just teacher talk or lecture. Similarly, the 'recitation method' of teaching was found effective when the teacher asked questions rather than simply talked. Koenig, Endorf and Braun (2007) found that the instructor's role was important in recitation classes, and that the most effective approach was for students to be organised in cooperative groups and questioned using Socratic dialogue. Adler (1982) recognised the limitations of the type of didactic teaching that was synonymous with lecturing, and in the *Paideia proposal* advocated a coaching role for teachers, not in the contemporary sense of preparing students for standardised testing but in the sense of guiding and assisting, especially in the 'practice phase'. Gambrell, Malloy and Mizzoni (cited in Gambrell, Morrow, & Pressley, 2007) likened effective teachers to 'coaches, guiding and explicitly linking' (p. 16) strategy instruction with authentic learning activities, and providing skill instruction to individuals, small groups and whole groups as needed. Smith, Lee and Newman (2001) considered the teacher's role as guide and coach in an extensive survey involving over 100,000 students and 5,000 teachers in the Chicago region, and confirmed both the importance of interactive instruction and its particular relevance to disadvantaged students. The specific relevance of explicit methodologies to the disadvantaged has been widely documented (Freebody & Baker, 1989; Freebody, Ludwig & Gunn, 1995; Stahl & Miller, 1989; Thompson, Turner & Nicholson, 1993).

Kirschner et al. (2006) drew on 'knowledge' of human cognitive architecture to support the case for teacher guidance in student instruction, defining instructional guidance as 'providing information that fully explains the concepts and procedures that students are required to learn as well as learning strategy support' (p. 75), and cited a considerable body of research supporting direct instructional guidance. Tuovinen and Sweller (1999) demonstrated that discovery learning practices led to poorer learning outcomes, especially for

novice learners, attributable to cognitive overload. In evaluating constructivist/discovery approaches, Aulls (2002), found that most success was gained by teachers who provided the most scaffolding, including modelling and coaching. These findings align with more recent discussions of the relative merit of the Progressive–Discovery–Constructivist and Conventional–Direct–Recitation approaches (Hattie & Yates, 2014).

Blythe (1998) presented a useful articulation of the shift in thinking about educational purposes, from 'knowledge' to 'knowing how to', a distinction that had occupied philosophers like Ryle (1949) and Polanyi (1958) in the last century. Blythe's work focused on 'understanding' as 'being able to do': in other words, it is consistent with a 'criterion-based assessment' approach to teaching, the focus on what the student is able to do as a result of gains in understanding. Wiggins and McTighe (2005) advocated a results-focused process, in which 'backward design' is used to develop a learning sequence to meet clearly articulated learning goals. Clearly stated standards provide reference points that not only direct planning but facilitate self-assessment. The authors suggest a simple litmus test of instructional quality, asking students to answer five questions: What are you doing? Why are you being asked to do it? What will it help you do? How does it fit with what you have previously done? How will you show that you have learned it? Arguably, this is a strong articulation of the principles underlying the Explicit Teaching Construct.

Developing a Construct of Explicit Teaching

While the focus of the study is expressed as an investigation of the teacher behaviours that are characteristic of explicit teaching, both the activities that the teacher facilitates and the structures that the teacher puts in place are relevant. Anstey stated that 'it is the acting out of the structural elements and the discourse that becomes the literate practice of the classroom' (cited in Anstey & Bull, 2003, p. 106). The characteristics that are identified as

best representing explicit teaching are a mix of what might reasonably be called ‘strategies’ and ‘tactics’. Hall (2002), in her report for the US Office of Special Education Programs on explicit instruction, distinguished between ‘Big Ideas’: concepts, principles, and heuristics, such as the principle of gradual release of responsibility, and ‘standard instructional delivery components’ such as adequate processing time, frequent student responses, and constant monitoring of responses (p. 3). Not all characteristics deemed significant are equally apparent in the classroom. One such characteristic, making a learning objective clear, may require a discussion at the start of the lesson and reminders throughout its course. However, as is discussed later in this chapter, the student being in possession of this knowledge is a critical element in effective feedback and the development of the skills required for SRL. Other significant Explicit Teaching Characteristics, such as feedback or questioning, may also be used frequently in the same lesson.

The Literature

Three main types of literature have proved most valuable in developing a construct of explicit teaching. The first addresses the nature of explicit teaching, either generally (Archer & Hughes, 2011; Hall, 2002), or in the context of literacy or an area of literacy (Anstey, 1993a, 1993b, 1998; Bayetto, 2015; Edwards-Groves, 1999, 2111, 2014; Hammond, 2015; Hempenstall & Buckingham, 2016; Moore, Hammond, & Featherston, 2014). The value in this literature is the identification of the individual teacher behaviours or strategies and tactics that constitute explicit teaching. Of particular use is the work of Archer and Hughes (2011). The text presents sixteen elements of explicit instruction, closely associated with the work of Rosenshine (2012; Rosenshine & Stevens, 1986) and provides clear descriptions of how the approach is enacted in the classroom. The approach has been the basis of the extensive professional development conducted by Archer in education systems and schools across the United States and in Australia. The currency, and relevance of this work to developing a

construct that represents the contemporary discourse is evident in the web-based resources that support ongoing professional development initiatives in the United States (Anita Archer's Explicit Instruction Website, n.d.; Explicit Instruction, n.d.; Introduction to Explicit Instruction, n.d.) and in Archer's ongoing work in Australian schools (Dr Anita Archer: Getting Them All Engaged, n.d.).

The second type of literature presents evidenced-based practices and strategies that are linked with the explicit teaching approach. A certain assuredness is evident in the titles of many of these works: *'Principles of instruction: Research-based strategies that all teachers should know*' (Rosenshine, 2012); '*Organizing instruction and study to improve student learning'* (Pashler et al., 2007); '*What works best: Evidence-based practices to help improve NSW student performance'* (CESE, 2014); '*State of the art—Teacher effectiveness and professional learning, school effectiveness and school improvement*' (Muijs, Kyriakides et al., 2014); and '*What makes great teaching? review of the underpinning research*' (Coe et al., 2014). The theme is clear. Hattie (2009, 2012) has been referenced frequently, individually and in collaboration (Hattie & Anderman, 2013; Hattie & Gan, 2011; Hattie & Timperley, 2007; Hattie & Yates, 2014). Evidence from Hattie's meta-analyses, widely cited in much of the contemporary literature that contributed to this study, is regularly drawn upon. The extremely wide scope of the 'visible learning' trilogy (Hattie, 2009, 2012; Hattie & Yates, 2014) has led some to refer to it as the 'holy grail' of research on teaching (Terhart, 2011). Baillargeon (2014) views it as required reading for all educators. However, this meta-analysis of meta-analyses, which Terhart refers to as a 'mega-analysis' (p.2), while providing access to a comprehensive compilation of educational research, may not do all that it purports to do. Bergeron (2017) exemplifies a critical view of the statistical validity of Hattie's work. He claims that, in particular, a lack of rigor is evident in the miscalculation of meta-analyses and the use of inappropriate base-line comparisons. Terhart notes the heterogeneous data quality,

but concludes that Hattie's work is a consolidation of what is already known, with many of the most influential factors identified already known. It is with this caution that Hattie's work is presented in this study. Where statistical measures such as effect sizes are presented, they are not to be taken as the precise measure of a strategy's impact on learning relative to other strategies measured, but rather, as an indication that a body of research supports the general claim.

The idea of the visibility of learning that is addressed by the 'Visible Learning' trilogy (Hattie, 2009, 2012; Hattie & Yates, 2014) fits comfortably with evidence-based best practice literature. This body of work persuasively presents a case for explicit teaching and an iteration of that approach which matches the contemporary discourse. The influence of the work is reflected in over 13,000 citations of the first volume (Hattie, 2009) including reviews of evidence-based best practice such as Coe et al. (2014), Husband and Pearce (2012) and Muijs et al. (2014), which have advised this study. Similarly, Hattie and Timperley (2007) have been influential with respect to the study of feedback with over 9,000 citations.

The high frequency with which the work of Hattie appears in this study reflects the pervasiveness of his work in the discourse that this study addresses. Care has been taken to present a range of primary sources to substantiate the positions taken in this study, and although Hattie citations are prominent, corroborative references from other evidence-based literature such as Muijs and Reynolds (2011) are regularly cited, although not necessarily in juxtaposition with the Hattie citations.

The third type of literature discusses particular aspects of explicit teaching, such as feedback (Hattie & Timperley, 2007; Kluger & DeNisi, 1996; Nicol & Macfarlane-Dick, 2006; Sadler, 1989), metacognition (Haller, Child, & Walberg, 1988; Schraw et al., 2006; Zohar & David, 2008), and classroom discussion or dialogue (Cazden, 2001; Edwards-Groves et al., 2014; Murphy, Wilkinson, Soter, Hennessey, & Alexander, 2009). This

information assists in discriminating between individual teacher practices within characteristics.

The Explicit Teaching Characteristic Observation Set

The immediate value of Anstey's work (1993a, 1993b, 1998) is the identification of highly explicit lessons, a general set of principles and a set of associated characteristics drawn from classroom observations (see Appendix B:
Anstey's Explicit Instruction from the Literature in Juxtaposition with the Characteristics from an Explicit Group of Lessons.). Her framework, with its seven principles and observed characteristics, is similar to the clarity checklists developed by Cruikshank (1985) and Simonds (1997) (see Appendix C: Teacher Clarity Descriptive Frameworks) for self-auditing, although details vary and only Simonds emphases feedback to students. Fendick (1990) claimed that clarity encompassed organisation, explanation, guided practice, examples and the assessment of student learning, illustrating the breadth of the characteristics associated with explicit teaching and clarity.

The clarity checklists have many items in common with the explicit teaching characteristic lists (see The Explicit Teaching Characteristic Observation Set, Table 1), although there is little mention of the strategies that help students become active learners: metacognition and SRL, student dialogue, and students asking questions. The value of the clarity literature was found in the contribution it makes to identifying those strategies that provide clarity for students.

The characteristics of explicit teaching from the literature on explicit teaching, teaching clarity, and best practice are presented in Tables 1and 2. In some cases the lists are presented in the same form as they originally appeared, while in others items are summarised or extracted from a broader discussion in the source.

Table 1

A Comparison of Explicit Teaching and Teacher Clarity Characteristics

Anstey (1998) Characteristics of explicit instruction	Archer & Hughes (2011) Sixteen characteristics of explicit instruction	Hempenstall & Buckingham (2016) What is explicit instruction?	Cruikshank (1985) Teacher clarity self inventory	Simonds (1997) Teacher clarity report
1.Is functional and goal-directed; 2. Seen to be relevant to life in a variety of contexts; 3. Develops and enhances the concept of literacy, not just skills; 4. Contains explanations and demonstrations by the teacher which give propositional, procedural and conditional knowledge, include cognition and metacognition; 5. Incorporates practice, adaptation and transfer of the strategy or skill has been explained and demonstrated through activities that facilitate and encourage self-monitoring; 6. Acknowledges students' social context outside the	1.Focuses instruction on critical content—that will match student instructional need; 2.Sequences skills logically—to ensure mastery; 3.Breaks down complex skills and strategies into smaller instructional units—avoids cognitive overload and through practice develops synthesis; 4. Designs organised and focused lessons—optimise use of instructional time; 5. Begins lessons with a clear statement of the lesson's goals and teacher expectations—helps students to understand purpose; 6. Reviews prior skills and knowledge before beginning	1.Teacher directly instructs the student in knowledge and skills; 2.Use of clear and unambiguous language; 3.Teacher models the learning and provides guided support; 4.Students practise and receive specific and immediate feedback; 5.Learning objectives and what is required of students is made clear; 6.Teacher–student interaction is high and responses are many; 7.Instruction is carefully planned and sequenced; 8. Objectives are hierarchical starting with the simple and becoming	1.Orients and prepares students for what is to be taught; 2.Communicates content so that students understand; 3.Provides illustrations and examples; 4.Demonstrates; 5.Uses a variety of teaching materials; 6.Teaches things in a related, step-by-step manner; 7.Repeats and stresses directions and difficult points; 8.Adjusts teaching to the learner and topic; 9.Causes students to organise learning in meaningful ways; 10.Provides practice;	1.Is clear and uses examples when presenting content; 2.Relates examples to the concept being discussed; 3.Uses the board, transparencies, or other visual aids during class; 4.Gives previews of material to be covered; 5.Communicates classroom processes and expectations clearly; 6.Defines major/new concepts; 7.Prepares students for the tasks they will be doing next; 8.Prepares students for exams; 9.Explains how they should prepare for an exam;

classroom in the selection of content and materials; 7. Uses materials that resemble a variety of real life situations and contexts in which the skills or strategies might be used.	instruction—verifies prerequisite skills and assists to make links; 7. Provides step-by-step demonstrations—models, clarifies and shares thinking process aloud; 8. Uses clear and concise language—matches to student receptive vocabulary; 9. Provides an adequate range of examples and non-examples—supports understanding of skill application; 10. Provides guided and supported practice—supports gradual mastery; 11. Requires frequent responses—maintains engagement and checks understanding; 12. Monitors student performance closely—verifies mastery and adjusts instruction as necessary 13. Provides immediate affirmative and corrective feedback;	complex, commencing at the level of students' competence.	11. Provides standards and rules for satisfactory performance.	10.Provides rules and standards for satisfactory performance; 11.Points out practical applications for coursework; 12.Provides students with feedback of how well they are doing; 13.Describes assignments and how they should be done; 14.Asks if students know what to do and how to do it; 15.Defines major/new concepts; 16.Gives summaries when presenting content; 17.Stresses important points; 18. Stays on topic.

	14. Delivers the lesson at a brisk pace—structures and paces to optimise on task behaviour; 15. Helps students organise knowledge—makes connections between skills and concepts; 16. Provides distributed and cumulative practice—multiple opportunities over time.	

Table 2

Explicit Teaching Characteristics from Selected Evidence-based Best Practice Literature

Rosenshine (2012, p.19) Seventeen principles of effective instruction	Creemers & Kyriakides (2006) Dynamic model of educational effectiveness	CESE (2014) (adapted)
1. Begins a lesson with a short review of previous learning; 2. Presents new material in small steps with student practice after each step; 3. Limits the amount of material that students receive at one time; 4. Gives clear and detailed instructions and explanations; 5. Asks a large number of questions and checks for understanding; 6. Provides a high level of active practice for all students; 7. Guides students as they begin to practise; 8. Thinks aloud and models steps; 9. Provides models of worked out problems; 10. Asks students to explain what they have learned; 11. Checks the responses of all students; 12. Provides systematic feedback and corrections; 13. Uses more time to provide explanations;	1. Provides the objectives for which a specific task/lesson/series of lessons take(s) place; 2. Challenges students to identify the reason why an activity is taking place in the lesson; 3. Begins with overviews and/or review of objectives; 4. Outlines the content to be covered and signals transitions between lesson parts; 5. Draws attention to and reviews main ideas; 6. Raises different types of questions (i.e., process and product) at appropriate difficulty level; 7. Gives time for students to respond; 8. Deals with student responses; 9. Encourages students to use problem-solving strategies presented by the teacher or other classmates; 10. Invites students to develop strategies; 11. Promotes the idea of modelling; 12. Uses seatwork or small-group tasks in order to provide needed practice and application opportunities;	1.Tells students what they will be learning and is clear about the purpose of tasks; 2. Demonstrates and explaining new ideas and checks that students understand; 3. Gives time for asking and answering questions; 4. Systematically delivers basic skills and teaching skills in the right sequence so that students master the building blocks of skills like literacy and numeracy; 5. Asks students challenging questions like why, what, how, and what is the evidence for?; 6. Assesses and confirms whether students are learning before progressing; 7. Reviews learning and explains how it relates to related, and more complex, skills; 8.Gives feedback about process or effort and that encourages students' self-regulation.

14. Provides many examples 15. Reteaches material when necessary; 16. Prepares students for independent practice; 17. Monitors students when they begin independent practice.	13. Uses application tasks as starting points for the next step of teaching and learning; 14. Establishes on-task behaviour through the interactions they promote (i.e., teacher–student and student–student interactions).

The lists provide a useful starting point for identifying the most relevant and representative observational characteristics, although the 13 items contained in the Explicit Teaching Characteristics Observation Set (Table 3) are derived from the analysis and synthesis of pertinent discussion from a wide range of literature. In some instances these discussions pinpointed aspects of explicit teaching that are not highly visible in the summary lists. For instance, metacognition, or SRL, features less often than other elements, and student dialogue is mentioned only once, and indirectly. The discussions of related elements of explicit teaching presented persuasive cases for including these and other elements. Later in this chapter their characteristics are discussed in detail and the source literature acknowledged.

In the works represented in Tables 1 and 2, the elements that make up the explicit teaching characteristic set (and that serve as the Characteristic Observation Set) feature variably. For example, Characteristic 4, providing information about learning intentions and success criteria, features in six lists: ‘clear statement of the lesson’s goals and teacher expectations’ (Archer & Hughes, 2012); ‘learning objectives and what is required of students is made clear’ (Hempenstall & Buckingham, 2016); ‘preview material and provide standards for satisfactory performance’ (Simonds, 1997); ‘provide objectives for tasks, lessons etc.’ (Creemers & Kyriakydes, 2006); ‘be clear about purposes of tasks’ (CESE, 2014); and ‘use of focus phase to identify expected learning outcomes’ (Anstey, 1998). Characteristic 9, questioning, features in all lists apart from two that primarily addressed clarity (Cruikshank, 1985).

Characteristic 6 is feedback, for which a particularly strong case is made by Hattie (2012; 2009) and Hattie & Timperley (2007), features in five of the eight lists: ‘feedback about process or effort’ (CESE, 2014); ‘systematic feedback and corrections’ (Rosenshine, 2012); ‘immediate, affirmative and corrective feedback’ (Archer & Hughes, 2012); ‘specific

and immediate feedback' (Hempenstall & Buckingham, 2016); and 'feedback of how well they are doing' (Simonds, 1997). These references in each case give pointers to the type of feedback that is associated with high gain scores. As will be discussed later, the concept of feedback shows promise as an explicit teaching characteristic, but a distinction between productive and unproductive feedback needs to be made.

Metacognition, Characteristic 8, features three times and has a high level of efficacy attributed to it in the wider literature (Anstey, 1998; Archer & Hughes, 2012; CESE, 2014; Chick, 2017; Edwards-Groves, 1999; Hattie, 2009; Husband & Pearce, 2012; Muijs et al. 2014). It may be seen as synonymous with, or with the major aspect of, SRL, portrayed in the literature as an essential attribute of effective and independent learners.

Student Dialogue, Characteristic 10, is only mentioned once: 'establishing on-task behaviour through the interactions they promote (i.e. teacher–student and student–student interactions' (Creemers & Kyriakides, 2006). It was consistently represented as already having been demonstrated to be efficacious (by Edwards-Groves, Anstey, & Bull, 2014; Galton, Steward, Hargreaves, Page, & Pell, 2009; Hattie & Yates, 2014; Husband & Pearce, 2014; Kim & Hannafin, 2011; Muijs et al., 2014; and Murphy et al., 2009). In common with Feedback, Characteristic 6, the efficacy of student dialogue was qualified by reference to specific conditions that are prerequisites for its use in achieving positive outcomes.

Each of the 13 characteristics selected, besides having been acknowledged in the explicit teaching literature, contributes to creating transparency for the student, making clear those things that are sometimes hidden, obscure or seemingly secret. Metacognition serves to make the inner workings of the mind visible. Student Dialogue uses student 'discourse' (Gee, 1989), familiar language, to bring clarity.

Table 3

Explicit Teaching Characteristics (Observation) Set

Number	Characteristic
1.	**Structure**: Instruction is organised into sequential phases: focus, identification, practice, transfer, and concluding phase; review and reporting phases are regularly inserted throughout the lesson.
2.	**Gradual Release of Responsibility**: Generally, the teacher's role is explanation, modelling and demonstration, and assistance and guidance. A gradual release of responsibility to the student takes place as student fluency develops.
3.	**Context**: The teacher provides information about the purpose of the lesson, how the content may be useful and relevant in learning and real-world applications, and makes connections to other learning.
4.	**Process**: The teacher provides information about what the students will be doing and how they will demonstrate their learning and success criteria. Learning goals are clearly articulated, enabling students to self-monitor.
5.	**Monitoring**: The teacher monitors student learning in order to give and receive feedback, and responds with review and clarification, targeting individuals, small groups and large groups for instruction as necessary.
6.	**Feedback**: Feedback that is instructional and timely is provided to students in the practice and transfer phases. In a coaching role, the teacher assists the student to close the gap between performance and learning goals.
7.	**Knowledge**: Teaching features cognitive and metacognitive processes. Attention is given to propositional, procedural and conditional knowledge. Teacher talk includes declaratives.
8.	**Metacognition**: Metacognition and SRL skills are explicitly taught. 'Thinking out loud' features in discussion.
9.	**Questioning**: Questions are frequently asked by the teacher and students and include a mix of high- and low-order questions. The teacher both answers student questions and redirects them to other students to answer.
10.	**Student Dialogue**: Students engage in well planned and structured dialogue with one another.
11.	**Clarity**: The teacher communicates with a clarity that is matched to student understanding, and uses appropriate support materials and demonstrations to increase clarity. Students are able to ask clarifying questions.
12.	**Focus**: While individual skills are taught, they are always explicitly related to the development of concepts. The teacher maintains focus on the topic.
13.	**Curriculum**: Learning is presented at a suitable level for the student, based on a sequential curriculum which identifies the necessary order for skill and concept development.

Key elements of Characteristic 4, Process, the statement of learning intentions and a description of required outcomes brings the endpoint into sight while feedback indicates the progress made along the path towards the endpoint and if necessary, assists students to realign themselves on the path that leads most directly there.

Individual Characteristics

Earlier, in the section Classroom Shortcomings, a justification for this study was presented on the basis of the prominence of explicit teaching in the discourse on the classroom performance of teachers, student learning outcomes and concerns that the details of teachers' classroom practices were often not fully known. In the process of seeking a synthesis of the literature that captures the essence of explicit teaching in action, it has been clear that its advocates present explicit teaching as a strongly evidence-based approach to teaching.

This review seeks to document the connections that have been made with research. The following discussion of the individual characteristics that comprise the Explicit Teaching Construct seeks to provide some details of the variables that might be observed in individual teacher practice, assisting in the development of individual teacher profiles for the purpose of comparison. Discussion of variables in practice often focuses on the evidence base for the relative effectiveness of different approaches to a characteristic. This is particularly evident with respect to asking questions and providing feedback. The evidence base supporting the superiority of a particular approach to implementing a characteristic will also be noted in the discussion where applicable.

Explicit Teaching and Lesson Structure

The explicit teaching literature exhibits a strong convergence towards a particular lesson structure that has a set of core characteristics. This includes the literature that takes a

holistic view of explicit teaching, sometimes with particular reference to literacy (Anstey, 1998; Archer & Hughes, 2012; Edwards-Groves, 1999). It includes literature that discusses selected explicit teaching strategies (Hattie, 2009, 2012; Marzano et al., 2001) or addresses explicit teaching in a review of evidence-based best practice (CESE, 2014; Coe et al., 2014; Creemers & Kyriakides, 2006; Husband & Pearce, 2012; Muijs et al. 2014; Rosenshine, 2012).

Anstey, in her study of teacher talk in literacy, primarily through classroom observations (1993a), and her discussions of the characteristics of a group of lessons that she identified as highly explicit, as opposed to the body of lessons that were less explicit, (1993b, 1998) identified the explicit features from her focus areas, teacher talk, the materials selected for use, and, of particular relevance here, the structure of the lessons.

Lesson structure has been regularly identified as a critical element in explicit teaching (Anstey, 1998; Archer & Hughes, 2011; CESE, 2014; Creemers & Kyriakides, 2006; Edwards-Groves, 1999; Hattie, 2009; Rosenshine, 2012). Marzano et al. (2001) provided a model of those structures in an example of instructional planning utilising their featured instructional strategies. The Explicit Teaching Construct advocated here is strongly connected to the GRR model (Pearson & Gallagher, 1983) discussed in Teaching and Learning Theory. The idea of scaffolding (Brown & Campione, 1994; Kirschner et al., 2006) is fundamental to explicit teaching approaches and gives rise to the principle that a gradual release of the teacher's responsibility takes place as the student acquires the skill being taught and the support of scaffolding becomes no longer necessary. Roe et al. (2009) observed that within a model of the gradual release of responsibility, explicit teaching activities are denser at the outset, with guided practice providing a transition to independence for the student armed with metacognitive strategies for self-monitoring.

Hattie (2009) described explicit teaching in terms of the teacher's role, flagging the important phases that define an explicit teaching structure:

> The teacher decides the learning intentions and success criteria, makes them transparent to students, demonstrates them by modelling, evaluates if they understand what they have been told by checking for understanding and retelling them what they have been told by tying it all together with closure. (p. 206)

During guided practice the teacher monitors students as they try out a new skill, providing feedback and individual intervention where necessary. Students then have opportunities for independent practice in a range of contexts to consolidate the skill, but should not be directed to independent practice until it is certain they can be successful (Slavin et al., 1996). Immediate feedback during monitoring and the gradual release of responsibility ensure that students consolidate correct rather than incorrect knowledge and strategies.

Anstey (1993b) described the structural aspects of explicit lessons in terms of phases, based on the work of Shuy (1988): attention, focus, process, and transition out. However, in the examination of the characteristics of highly explicit lessons, Anstey favoured a more elaborate set of phases to capture the processes at work:

1. The Focus phase—The lesson is introduced with attention to learning intentions and the criteria for student success. Contextual information is given including links to previous learning and the purposes and usefulness of the skill concerned;
2. The Identifying phase—The skill is identified and defined. The teacher demonstrates the skill. Anstey noted that in the explicit teaching group of lessons, skills were introduced one at a time. The introduction of multiple skills led to confusion;
3. The Practice phase—Students are guided as they practise the skill. The teacher monitors student understanding as students move towards independent practice;
4. The Transfer phase—Students apply the skill for its intended purpose;

5. The Review phase—Often occurring midway through a lesson, this phase involves repeating essential learning information to maintain focus and clarity;
6. The Reporting phase—Reporting phases can occur several times during a lesson, often following completion of individual tasks, and also to monitor progress during tasks and to provide opportunities for students to learn through sharing; and
7. The Conclusion phase—This phase marks the end of the lesson and may summarise what has been accomplished and provide information about how it links to the next lesson/s.

Creemers and Kyriakides (2006) developed the Dynamic Model of Educational Effectiveness. In the introductory phase, the 'Orientation', the objectives of the specific lesson are introduced. They recommended challenging students to identify the reasons for an activity. An overview and outline of content is provided and periodically throughout the lesson the objectives and main ideas of the lesson are reviewed. The importance they placed on maintaining lesson focus reflects Anstey's (1993) identification of focus as one of four structural characteristics of explicit lessons. They also suggested that modelling could be provided by the teacher or by students. Seatwork or small group tasks provided opportunities for practice and then application.

Rosenshine (2012) outlined a similar structure to these, commencing with a short review followed by teacher modelling and student practice. He cited research indicating that 'the most successful teachers spend more than half class time lecturing, demonstrating and asking questions' (p. 14). They also spend more time than other teachers guiding practice and posing factual and process questions. Teacher questions and student discussion are major strategies for providing practice. The teacher supervises independent practice, monitoring it for student understanding.

An outline of an explicit instruction lesson structure provided by Archer and Hughes (2011) more directly addressed the classroom teacher in its audience, and consequently is more detailed and may be seen as more prescriptive in some areas than other overviews already considered.

While the several overviews of explicit lesson structure may seem very similar, the detail is significant, giving clues to the possible scope of each phase. Archer and Hughes (2011) describe a statement of goals and teacher expectations, an explanation of purpose, a review of prior learning and assistance in making links to the lesson's beginning. The next phase involves the teacher in providing step-by-step demonstrations, modelling, clarifying and sharing the thinking process aloud (p. 29), an example of the importance placed on making cognitive and metacognitive processes transparent in the explicit teaching classroom. They note that in the guided practice phase the teacher mainly provides verbal prompts that include directives, questions and reminders, but also visual prompts. The practice or transfer phase is called 'unprompted practice'.

A simple generalisation of the body of the lesson, presented in Table 4 below, indicates the respective roles of teacher and student (Archer & Hughes, 2011, pp. 29–39).

Table 4

A Basic Explicit Teaching Lesson Structure designed by Archer & Hughes (2011)

Activity Descriptor	Activity Examples	Participant Roles
Modelling	Showing Demonstrating Describing	I do it (teacher)
Prompted or guided practice	Telling Asking Reminding	We do it (teacher and students)
Unprompted practice	Applying	You do it (students)

The closing phase comprises a review of the lesson, assigned independent practice and a preview of the next lesson.

A synthesis of the commentaries on the structure of explicit lessons reveals strong agreement about the nature and order of the major lesson activities. That is not to say that structure is always straightforward: for instance, although beginning and concluding phases are often described as comparatively brief (Archer & Hughes, 2011; Creemers & Kyriakides, 2006; Rosenshine, 2012), depending on a particular lesson's agenda they may be anything but. For the purposes of this study a classification of lesson phases has been developed; it is presented in Table 5. The first five phases represent the normal core sequence of an explicit lesson. Where multiple skills are taught within a single period, phases two to four (modelling, guided practice, independent practice) may be repeated a number of times. Phases six and seven may vary with respect to sequencing and frequency once the practice phases commence.

Anstey (1998) noted that phase changes are signalled by the teacher, either verbally or physically (p. 214). A verbal signal may be a statement, instruction or tag such as 'time!' or 'next!' Physically it may be a change in student activity, in the use of the physical space, or in the use of equipment. Potential challenges for an observer arise when students are involved in different phases of a lesson, as will happen when their personal understanding qualifies some for independent practice and transfer while others require degrees of guided practice. In addition, the boundaries between the reviewing, reporting and concluding phases may sometimes be indistinct.

Table 5

Explicit Teaching Lesson Phases (Developed by Fuglsang)

Phase	Description
Focus	Learning intentions; Success criteria; Reviewing/linking to prior learning; Purpose/utility of skills/learning; Contextual information.
Modelling	Identification/definition; Step-by-step demonstration; Thinking out loud; Clarifying.
Guided Practice	Monitoring; Feedback; Individual intervention; Visual and verbal prompts including directives, questions and reminders.
Independent Practice	Applying skill; Transferring skill; Range of contexts.
Conclusion	Lesson review, telling what has been taught; Previewing/linking to next lesson; Assigning independent practice.
Review	Overviewing lesson purpose and process; Repeating information for focus/clarity.
Reporting	Monitoring student understanding; Sharing student understanding; Clarifying learning intentions

Note: During observations it was not uncommon for some students to be involved in independent practice while others worked with the teacher in guided practice. When these phases coincided, in Chapter 4, the term ‘guided and independent practice phase’ is used.

Teacher Talk

Teacher talk was identified by Anstey (1998) as the second major area of difference in the characteristics of highly explicit and less explicit literacy lessons. Muijs et al. (2014), reviewing the importance of teacher–student interaction in the context of effective instruction, identify three key teacher talk activities: giving information (structuring); asking questions (soliciting); and giving feedback (reacting). All three deserve careful consideration, given the specific body of evidence about the productive practices pertaining to each.

The nature of structuring, or the provision of information to students about the learning to be done, is discussed particularly with respect to the structure of an explicit lesson and has great relevance in the focus phase of a lesson, although it is an important aspect of classroom talk in general. Questioning and feedback have been discussed in this chapter as discrete aspects of classroom talk although in practice they are usually tightly intertwined in the learning process.

A number of elements of teacher talk deserve emphasis. The importance of making the learning intentions of a lesson clear, explaining what students will be doing and how they will demonstrate their understanding, has been emphasised in the literature (Anstey, 1998; Archer & Hughes, 2011; Creemers & Kyriakides, 2006; Hempenstall & Buckingham, 2016). Advocates of explicit teaching place high importance on students understanding both the immediate and long-term purposes of their lessons, yet in the 2005 *Learning 24/7* study (cited in Schmoker, 2006), only 4% of 1,500 classes showed evidence of a clear learning objective. More recently, it has been found that telling students how their work will be assessed is linked with higher achievement in standardised testing (CESE, 2009; 2012).

Student understanding of learning objectives is a fundamental aim of the learning process, achieved by incorporating feedback to 'close the gap' between intended outcomes and actual performance in order to assist the student reach the expected outcomes (Nicol & Macfarlane-Dick, 2006). The development of metacognitive skills, or the full realisation of SRL for students, depends on an understanding of learning objectives (Muijs et al., 2014). Two of the most promising strategies for supporting learning effectiveness, feedback and metacognition (Hattie, 2009) are strongly associated with learning objective transparency. The involvement of students in setting their own learning goals can be an effective strategy (Marzano et al., 2001) especially in light of the research associated with the encouragement of student voice (Hattie, 2014; Husband & Pearce, 2012).

Anstey & Bull (2004) noted the recommendation for clearly specified performance outcomes situated in real contexts. The recommendation arose from Productive Pedagogies, an outcome of the Queensland School Reform Longitudinal Study conducted in schools between1998 and 2000. (Lingard et al., 2001). Specifically, students should be made aware of 'explicit quality performance criteria' (Lingard et al., p. 19). In addition to being told of the performance goals of a lesson, students should be made aware of the usefulness of the learning and relevant real-world applications (Anstey, 1998; Hall, 2002; Simonds, 1997). Meaningfulness can assist with motivation: students who fail to develop interest in their work make less progress than those who do (Kim & Hannafin, 2011).

Notwithstanding the importance of the teacher asking questions, particularly using Socratic dialogue, instructing students directly in knowledge and skills is also valuable (Hempenstall & Buckingham, 2016). This includes declarative statements (Anstey, 1998; Muijs et al., 2014), imparting content, explaining the learning process, skills and procedures, and providing instructional feedback. Telling students, as a form of instruction, can be reinforced by monitoring for understanding, reviewing, and reteaching.

Other approaches that appear to be useful to students include explaining a lesson's connection with prior and future learning. Creemers and Kyriakides (2006) recommended providing an overview of the objectives of a learning sequence, whether of a single period or a series of lessons. Prior skills and knowledge should be reviewed before instruction begins (Archer & Hughes, 2011) and at the conclusion of the lesson links to the next lesson should be made (Anstey, 1993b).

This view of teaching demonstrates how important it is that students know the learning intentions of the lesson, how their learning will be judged, and the utility of the learning in the short and long terms. Teacher talk should include declaratives and information delivered over an appropriate period of time, and address three types of knowledge: propositional (knowing about); procedural (knowing how) and conditional (knowing when) (Anstey, 1998). Other contextual information, particularly that information which makes connections with other relevant learning, is also of value. The nature of the teacher's role in promoting dialogue in the classroom, largely through teacher talk, has been discussed in some detail in the sections, Questioning, and Student Dialogue and Student Group Work.

Monitoring

Monitoring is intrinsically associated with feedback. Feedback is acknowledged as a powerful influence on positive learning outcomes, and is corrective, instructive, and confirms to a student the progress made (or not). This is feedback that teachers give students. One function of monitoring is the provision of feedback to the teacher that allows adjustments in instruction to address learning intentions more clearly (Hattie, 2012).

Monitoring, in the sense of checking for student understanding, either from the evidence found in the tasks they are performing or from responses elicited for the purpose of checking, is a widely acknowledged element of the explicit teaching approach (Archer & Hughes, 2011; CESE, 2014; Rosenshine, 2012; Simonds, 1997). Rosenshine reported that 'students were more engaged when their teacher circulated around the room and supervised their seatwork' (p. 8) and that 'more effective teachers frequently checked to see if students were learning new material' (p. 5). Represented here are two common aspects of monitoring: checking for student understanding during the instructional phases, in particular through guided practice allowing 'timely adjustments to instruction' (Archer & Hughes, 2011); and the supervision of deskwork during independent practice providing the opportunity for

affirmative, corrective and instructional feedback while students are in the process of practising and applying their learning.

Rosenshine (2012) argued that a frequent need for clarification during independent practice was an indication that the guided practice had not adequately prepared the students. Frequent checking for understanding during guided practice limits the development of misconceptions, and establishes that the requisite learning is in place before progressing (CECE, 2014). Teachers may check by sampling students or by seeking responses from them all.

Strategies for checking student understanding include:

- asking questions;
- asking for summaries;
- asking students to 'think aloud,' revealing cognitive processes;
- asking students to agree or disagree with peer answers (Rosenshine, 2012, p. 16).

Monitoring is a crucial element in Hattie's feedback loop (2012), of which he posits that the teacher has only taught when the student has understood; and that the capacity of the teacher to use feedback from monitoring and student performance data to adjust instruction as necessary is fundamental to effective teaching. Monitoring involves checking during guided practice, adjusting instruction accordingly, and providing feedback and instructional interventions during independent practice.

Feedback

Feedback is an important characteristic of the Explicit Teaching Construct, and is strongly linked with clear learning goals and intentions, monitoring and instruction. Archer and Hughes (2011), in their synthesis of explicit instruction literature, included the provision of 'immediate, affirmative and corrective feedback' (p. 3) among their sixteen elements of explicit instruction. Feedback is also featured as a powerful influence on student learning

outcomes in a wide range of literature dealing with evidence-based best practice (CESE, 2014; Husband & Pearce, 2012; Marzano et al., 2001; Muijs et al. 2014) and in literature focusing on feedback, formative assessment and SRL (Black & William, 1998, 2009; Hattie & Gan, 2011; Hattie & Timperley, 2007; Kluger and DeNisi, 1996; Sadler, 1989).

In an explicit teaching approach the type of feedback provided, correctional in nature and most often an adjunct to the teacher's monitoring activities, leads to the entwining of feedback and instruction (Hattie, 2009). The main purpose, as previously discussed, is to reduce the discrepancy between current understandings and performance and a known learning goal; Hattie (2009) asserted that feedback is not *the* answer to effective teaching and learning, but rather is 'one powerful answer' (p. 177).

Feedback defined. Feedback is information provided by an agent, teacher, peer, self, book, parent or other source about aspects of our performance or understanding. Winnie and Butler (1994) described feedback as 'information with which a learner can confirm, add to, overwrite, tune or restructure information in memory, whether the information is domain knowledge, metacognitive knowledge, belief about self and tasks, or cognitive tactics and strategies' (p. 5740). In discussing formative assessment and clarifying the function of effective feedback, Black and William (2009) stated that

> practice in a classroom is formative to the extent that evidence about student achievement is elicited, interpreted and used by teachers, learners or their peers, to make decisions about the next steps in instruction that are likely to be better, or better founded, than the decisions they would have taken in the absence of the evidence that was elicited. (p. 89)

Feedback is two-way: not only what the teacher gives the student, but also what the teacher receives from the student. Hattie (2009) asserted that teaching must be 'visible' to the student and learning must be 'visible' to the teacher (p. 25). The teacher's observations of

student learning represents feedback to the teacher and prompts instructional revision. This type of formative assessment tells the teacher what needs to be taught next (Hattie & Yates, 2014) and is most powerful when it comes from the student to the teacher. The teacher finds out from the student what is known and understood, and where errors have been made, and can respond with the most appropriate correctional and instructional feedback for that student (Hattie 2009). Such a feedback loop has strong implications for teacher behaviour while students are engaged in the practice phase of their learning, not the least because of the challenge of providing timely guidance within the limitations of available instructional time. Teacher guidance or coaching through feedback is an essential element of the Explicit Teaching Construct.

Evidence of effectiveness. Hattie found an average effect size of 0.73 for feedback in a meta-analysis of 1,287 studies (Hattie, 2009), which places it amongst the most effective and promising teaching strategies. This is similar to the findings of other meta-analyses (Hattie, 1999, cited in Hattie & Timperley, 2007; Seidel & Shavelson, 2007); although the type of feedback provided can alter results, with some types having a negative impact. The NSW Education Department reviews of factors influencing student performance in PISA and NAPLAN noted that students who reported they had specific types of feedback from the teacher tended to score better than those who reported that they had not (CESE, 2014).

Black and William (1998) reported that positive effects of feedback could be found across all levels of education, and all content areas and skill types. Kluger and DeNisi (1996) claimed that feedback produced significant performance outcomes when it alerted students to discrepancies at the task level and avoided cues that directed attention to aspects of self, such as student effort or attitude. There is some evidence that frequency of feedback is a significant variable for teacher effectiveness, especially feedback at the process and self-regulation levels. In general, however, teachers display low levels of feedback, and what

there is, is largely at the self (personal) level and only sometimes at the task level (Hattie & Timperley, 2007).

The right type of feedback. The effectiveness of feedback depends on its nature, and it is clear that some types lead to insignificant or even negative outcomes; but it can be powerful when it renders criteria for success transparent to the learner (Hattie & Gan, 2011). Hattie provided a model of effective feedback based on three questions:

- Where am I going? (Feed Up);
- How am I going? (Feedback);
- Where to next? (Feed Forward)

Each question works at four levels:

  - Task Level—(How well understood/ performed);
  - Process Level—(Processes needed to understand/perform tasks);
  - Self-regulation Level—(Self-monitoring, directing and regulating actions);
  - Self Level—(Personal evaluation and effect—usually positive). (2009, p. 176)

Hattie asserted that to be effective, feedback needs to be clear, purposeful, meaningful and compatible with students' prior knowledge. Feedback has to make logical connections: 'it needs to prompt active information processing on the part of the learner, have low task complexity', relate to specific and clear goals, and provide little threat to the person at the 'level of self' (p. 177). Similarly, the CESE review noted that student achievement was related to feedback that focuses on improving tasks, processes and student self-regulation (2014).

Feedback has to be relevant to, or above, the student's performance level. Different types of feedback are needed depending on the learning stage of the student: those at the novice stage need corrective feedback, those developing proficiency need procedural

feedback, and highly competent students benefit from elaborated conceptual feedback (Hattie & Yates, 2014).

The promise or potential of feedback may be contingent upon the alignment of teacher perceptions with the evidence. Common misunderstandings that teachers have about feedback may put limitations on the gains to be made. For instance, teachers tend to think they give more feedback than their students think they receive (Hattie & Yates, 2014): at best, any one student may receive only 'moments of feedback' in a single day (Hattie 2009, p. 174). Many common forms of feedback, including praise, punishment and extrinsic rewards, or tangible rewards like stickers are less effective, which may be in part attributed to the paucity of task information provided (Deci, Koestra, & Ryan, 2001). Up to a third of feedback interventions may actually have a negative impact (Kluger & De Nisi, 1996), and praise of innate ability (you are very clever) instead of effort, and inflated praise for those with low self-esteem, have been identified by Timperley (cited in Hattie & Anderman, 2013) as having negative impacts. While teachers provide feedback through often-lengthy written comments on assessed work, students tend to ignore these, instead moving their focus on to the next task (Hattie & Yates, 2014).

Effective feedback in the classroom. In their discussion of formative feedback and self-regulation, Nicol and Macfarlane-Dick produced seven principles of good feedback practice:

1. Clarify what good performance is;
2. Facilitate self-assessment;
3. Deliver high quality feedback information;
4. Encourage teacher and peer dialogue;
5. Encourage positive motivation and self-esteem;
6. Provide opportunities to close the gap;

7. Use feedback to improve teaching. (2006, p. 203)

These seven principles are in harmony with key elements of the Explicit Teaching Construct and the emerging understanding of the interrelated nature of the elements within the construct: learning intention, self-regulation/metacognition, student dialogue, and the teacher giving and receiving feedback of high quality. These have been discussed in terms of their roles in closing the gap between prior understanding and the lesson's goals.

A perspective that has remained highly relevant is that of Sadler (1989, p. 204) who described the three conditions necessary for students to benefit from feedback in academic tasks. He argued that the student must know

- what good performance is (i.e. the student must possess a concept of the goal or standard being aimed for);
- how current performance relates to good performance (for this, the student must be able to compare current and good performance);
- how to act to close the gap between current and good performance.

Sadler made an important observation: for students to be able to compare actual performance against a standard (as suggested by condition number 2), and take action to close the gap (condition number 3), they must already possess some of the same evaluative skills as their teacher.

Hattie and Timperley's (2007) four levels of feedback, confirm the nature of effective classroom practice. Feedback at the process level is generally most effective while feedback at the self (personal) level is least effective. Feedback at the task level, while usually indicating student work is correct or incorrect, is most effective when comments and clues are offered rather than grades. Process feedback, focussing on how students carry out tasks, combined with goal setting is highly effective.

At the self-regulation level, effective learners create internal feedback and cognitive routines. They know when and how to receive feedback from others. In addition, feedback must be given to student questions and answers to questions in the course of the lesson. Correct answers should be briefly acknowledged, partially correct answers need a prompt, and incorrect answers that indicate a lack of knowledge also need a prompt (Muijs et al., 2014). This timely feedback should be specific and informative, should focus on correct as opposed to incorrect answers, and should be in a tone that is 'positive, not punitive; constructive, not destructive; respectful, not insulting, and encouraging, not demoralizing' (Archer & Hughes, 2011, p. 179). Marzano et al. (2001) found that student monitoring using clear assessment frameworks such as rubrics represented another effective form of feedback.

The timing of feedback is an important consideration, often raised in the literature (Archer & Hughes, 2011; Hempenstall and Buckingham, 2016; Rosenshine, 2012). Usually immediate feedback is beneficial both at the task and process levels, although some advantages have been associated with delayed feedback at higher levels of processing.

The review of feedback literature indicates that effective feedback reduces the discrepancy between the current and the desired understanding. Its effectiveness is enhanced if it is timely—the closer to the event, the better; addresses previously established success criteria, and clearly describes both what is accurate and inaccurate in the student's work (Marzano et al., 2001). It is also apparent that not all feedback has a positive impact, with feedback not addressed to the task having a negative effect or no effect at all, and teacher tone affecting the effectiveness of the feedback. In addition, it has been noted that reverse feedback, from student to teacher, can enhance teacher effectiveness.

Metacognition

Metacognition, sometimes referred to as meta-strategic knowledge (Zohar & David, 2008) or discussed in association with SRL (Muijs et al., 2014), or implicated in 'think aloud'

strategies (Archer & Hughes, 2011, p. 29), is presented as a high value strategy in the explicit teaching classroom, both in the explicit teaching literature (Anstey, 1998; Archer & Hughes, 2011; Edwards-Groves, 1999) and in reviews of evidence-based best practice (CESE, 2014; Hattie, 2009; Husband & Pearce, 2012; Muijs et al. 2014; Rosenshine, 2012). Chick (2017) explained metacognition, '… put simply, (is) thinking about one's thinking. More precisely it refers to the processes used to monitor and assess one's understanding and performance' (p. 1). Schraw et al. (2006) considered the importance of metacognition to lie in the capacity it grants students to 'monitor their current knowledge and skill levels, plan and allocate limited learning resources with optimum efficiency and evaluate their learning' (p. 116). Metacognition, along with cognition and motivation, is a key element in the concept of SRL (Muijs et al. 2014), viewed as an essential characteristic for successful lifelong learners.

Considered the most important of the three SRL elements, metacognition is commonly conceptualised as comprising two components: metacognitive knowledge and metacognitive skills. Metacognitive knowledge refers to an individual's knowledge of their own thinking processes, and can be divided into three components:

1. Declarative knowledge, being knowledge about oneself as a learner and about the factors that influences one's performance;
2. Procedural knowledge, being knowledge about strategies and procedures;
3. Conditional knowledge, being knowledge of why and when to use a particular strategy (Schraw et al., 2006).

These components are also referred to as person variables, task variables and strategy variables, with much the same meaning (Flavell, 1979).

Further, three areas identified by Schraw et al. (2006) can be useful for grouping metacognitive skills: planning, monitoring and evaluation. Planning, involves setting goals, calling on prior knowledge, choosing strategies and allocating resources. Monitoring,

involves using checking and self-testing routines to monitor progress. Evaluation, involves reviewing the effectiveness of the learning processes in achieving the desired outcomes.

Meta-analyses report high effect sizes for metacognition: 0.67 compared with a benchmark of 0.4 for a normal annual gain (Hattie & Yates, 2014). Metacognition features in the vision for effective classrooms in Land's 2001 Queensland study, including recommendations that metacognitive skills should feature in every lesson and that metacognition along with other higher-order skills should be a focus in discussion or journal writing (Anstey & Bull, 2004, p. 313.). Lavery (2008) conducted a meta-analysis of metacognitive instructional strategies. Table 6 provides brief details and average size effects for the most effective strategies identified in Lavery's study:

Table 6

Effective Metacognitive Instructional Techniques

Instructional Technique	Example	Effect Size
Organising and transforming	Making an outline before attempting a writing task.	0.85
Self consequence	Putting off pleasurable events until the work is completed.	0.70
Self instruction	Verbalising the steps involved in completing a task.	0.62
Self evaluation	Checking work before submitting it.	0.62
Help seeking	Using a study partner or seeking assistance from the teacher.	0.60
Keeping records	Taking notes while information is given.	0.59
Rehearsing and memorising	Using 'cover, write, check' to learn spelling words.	0.57
Goal setting and planning	Making lists of tasks.	0.49
Reviewing records	Referring back to information about a task.	0.49

Note: adapted from Lavery (2008).

Zohar and David (2008) investigated the effects of explicitly teaching meta-strategic knowledge in authentic classroom situations. Their comparisons of the gains of high- and low-achieving students within both the experimental and control groups demonstrated a

significant positive effect for meta-strategic instruction, with ‘remarkable’ progress for low achieving students, who even outperformed the high-achieving students in the control group. These findings confirm the conclusions of others in the field, including Ross (1988) and Klahr and Nigam (2004) with respect to metacognitive effect, and White and Frederiksen (2000) with particular reference to the significant impact of meta-strategic knowledge on students with low academic achievement.

Tishman, Perkins, and Jay (1995) advocated a classroom environment in which mental management (metacognition), ‘the activity of reflecting on and evaluating one’s own thinking processes’ (p. 67), was to be explicitly taught through modelling, clear explanation, practice and feedback. Evidence from a number of other studies confirmed that metacognitive skills can be taught (Nietfeld & Schraw, 2002; Thiede, Anderson, & Therriault, 2003). Muijs et al. listed three interventions to develop SRL/metacognition in students:

- Embed metacognition in normal coursework;
- Inform students about the usefulness of metacognitive activities;
- Specifically and explicitly teach metacognition by modelling, providing practice and feedback over a prolonged period. (2014, p. 241)

Dignath, Buettner, and Langfeldt (2008) found that instruction on metacognition was most effective when it incorporated reflection.

Hattie (2009) made a strong case for the need for strategy training to be embedded in the teaching context, warning that if it was not ‘contextually embedded’ it was of little value (p. 193). Robbins et al. (2004) presented four principles for embedding study regulation support and instruction:

1. Guide learners to prepare and structure an effective learning environment;
2. Organise instruction and activities to facilitate cognitive and metacognitive processes;

3. Use instructional goals and feedback to present student monitoring opportunities;
4. Provide learners with continuous evaluation information and occasions to self evaluate.

Edwards-Groves' view of explicit instruction as 'letting [students] in on the big secret' (1999, p. 1), is as relevant to making explicit or visible the selection and use of cognitive processes as it to each of the characteristics of explicit instruction. When embedded in coursework it may take the form of 'thinking aloud', an element discussed in relation to teacher modelling (Archer & Hughes, 2011; Rosenshine, 2012). Anstey (1998) observed that the teacher 'actually stated aloud the thought that might be going through one's head when using a process' (p. 212).

The Teaching Excellence in Adult Literacy (TEAL) Center *Guide* (2012) provides a glimpse of what may be observed in an approach to embedding metacognition in the literacy classroom: The teacher may teach students to ask questions about reading, modelling this by thinking aloud, meaning to voice the thoughts that might give rise to questions. In the same way, self-questioning for reading comprehension, choosing to highlight or take notes from a text, and organising writing tasks through the use of graphic organisers may be discussed, modelled and practised. Some findings related to reading comprehension suggest that the larger the range of instructional strategies used in a lesson, the greater the number of students influenced (Chiu, 1998; Haller et al., 1988).

Ideally, the explicit classroom supports students to become self-regulated learners, able to develop and apply metacognitive knowledge and skills in their learning. Metacognition is a feature of classroom talk, and includes information imparted by the teacher, discussions involving teacher and students, and feedback provided to students about their learning. Metacognition, imbedded in classroom learning, has relevance to the knowledge and skills

that are the subject of the lesson or may itself be the subject, ideally in the context of other relevant learning.

Questioning

Rosenshine's (2012) review of the importance of teacher questioning and student discussion noted that effective teachers may spend more than half the lesson time lecturing, demonstrating and asking questions. He reported that effective teachers 'ask a large number of questions and check the responses of all students' (p. 14). Questions are asked at the beginning of a lesson when the previous lesson is reviewed, after every short presentation, and during the summary at the end of the lesson. In addition to asking many questions effective teachers also attempt to involve students in discussion (Muijs et al., 2014).

Teacher questioning is consistently identified in the explicit teaching literature as a critical characteristic of effective teachers, and 'the most effective teachers also ask students to explain the process they used to answer the question, to explain how the answer was found' (Rosenshine, 2012, p. 13) while less effective teachers tend to ask fewer questions and rarely ask process questions. Husband and Pearce (2012) indicated that although some teachers frequently asked questions, few require higher-order thinking, variously referred to as deep or process questions. More common are lower-order questions, also referred to as product or shallow questions. Some evidence suggests that a combination of higher- and lower-order questions, is most effective. Significant gains have been reported in the performance of upper primary and secondary students when the number of higher-order questions increased to 50% of the total (Cotton, 1988).

Two important aspects of questioning are a variety of questions, and their appropriateness (Creemers & Kyriakides, 2006). Lower-order questions generally verify existing knowledge, while higher-order questions build links between ideas (Craig, 2013), supporting the development of new knowledge. The seven evidence-based recommendations

for the organisation of instruction to improve student outcomes, the result of the work by Pashler et al. (2007), included recommendations for quizzing (recommendation 5b) and deep questioning (recommendation 7), citing a strong evidence base in both cases. Pashler et al. defined deep questions as those 'that appeal to causal mechanisms, planning, well-reasoned arguments and logic' (p. 29), asking 'why', 'how' and 'what' questions and questions that compare or require evidence.

Whether the purpose served by questioning is to monitor, review, scaffold or instruct (Muijs et al., 2014), engagement is an important consideration. Allowing sufficient time for all students to process a question and at least prepare a response is a prerequisite to full class engagement (CECE, 2014; Creemers & Kyriakides, 2006; Hall, 2002). Rosenshine (2012) suggested a range of strategies for teachers to encourage full participation:

- Tell a neighbour the answer;
- Write down an answer and share with a neighbour;
- Write an answer on a card and hold it up;
- Raise hands if you know the answer;
- Indicate if you agree or disagree with a given answer (p.14).

Strategies for the encouragement of less assertive students and questions that address a mix of cognitive levels relevant to the range of student cognitive abilities in the class support optimum engagement (Muijs et al. 2014).

The CESE analysis of PISA 2009 (2014) provided strong corroboration for the explicit teaching emphasis placed on questioning. A strong performance effect, equating to a year's advancement, was evident in students who reported that their teachers asked them to explain the meaning of texts, asked questions that challenged them to gain a better understanding, and gave them opportunities to ask questions about assignments. A smaller positive effect was

associated with being given motivating questions and having discussions about completed assignments.

Questioning has been identified as an integral part of the dialogic classroom in which the nature of talk impacts on the quality of thought. Productive class discourse is characterised by open ended authentic questioning, follow up questioning, analysis, generalisation and speculation (Wilkinson, Murphy & Binici, 2015). High level questions and discussions about text are a feature of the most effective schools and accomplished teachers (Taylor, Pearson, Clark & Walpole, 2000). Quality questions are important for quality outcomes (Nystrand et al., 1997).

Questioning that follows the Socratic approach, being a purposeful series of questions designed to lead students to 'question, listen and think critically' (Hattie, 2012, p. 76), is associated with positive outcomes when evaluated as a major element in the Paideia approach (Hattie, 2012; Hattie & Yates, 2014). Socratic questioning is claimed to add 'systemicity, depth and a keen interest (in students) in assessing the truth or plausibility of things' (The Foundation for Critical Thinking, 2015).

The Paideia model (Hattie & Yates, 2014) represents an approach to explicit teaching that comprises didactic instruction, Socratic questioning, and coaching. Consistent with the broader understanding of explicit teaching, it involves the active teaching of ideas and the relationships between them, and open questioning, usually of a higher order, that includes students asking and answering questions among each another, as well as with the teacher. Positive responses to students' questions can encourage them to seek help, which is a learner proficiency, particularly when the help sought and tendered is 'instrumental help seeking (asking for hints rather than answers).' (Hattie & Timperley, 2007, p. 96).

The repertoires at the teacher's disposal in a dialogic classroom include questioning and extending. Extending is a contribution to the original model by Michaels and O'Connor

(2012) and is largely applied to questioning through the use of nine ‘talk moves’ that either extend the question or the response with tactics such as asking for evidence of reasoning, asking for more content or challenging the student response. It is clear that in effective classrooms teachers ask students questions, students ask teachers questions, (CESE, 2014) and students question each other (Muijs et al., 2014).

While teachers need to maintain a reasonable quota of deep or higher-order questions, as discussed above, and create an atmosphere that invites student questions, benefits also arise from the ‘encouragement of deep student questions’ (Pashler et al., 2007, p. 30). It might be surmised that ‘encouragement’ means not only teacher receptiveness and positive feedback, but also the use of instructional practices that foster the cognitive and metacognitive understandings in students that equip them to ask deep questions (see Metacognition).

The evidence is that an effective explicitly taught lesson is characterised by a high frequency of questioning, made up of a mix of higher-order process questions and lower-order product questions. Strategies, include appropriate ‘think time’ and approaches that encourage full class engagement and participation. Purposeful questioning following the Socratic approach develops student thinking

Student Dialogue and Student Group Work

The literature reports positive outcomes from the encouragement of student dialogue, including gains for below average students (Hattie & Yates, 2014). Student dialogue, that is student to student dialogue, can take place in co-operative learning groups, in pairs and in teacher led class discussions when the teacher directs students to respond to each other. Husband and Pearce (2012) cited extensive evidence that effective pedagogies utilised questioning and dialogue to develop higher-order thinking and metacognition. However, purposeful strategies are necessary to structure student talk (Husband & Pearce, 2012;

Murphy et al., 2009). Galton, Hargreaves and Pell (2009) noted that 'exploratory' student talk can have a strong positive effect on concept formation and investigative work if effective planning and structure are in place. Hattie and Yates (2014) observed that 'it can be most powerful for teachers to construct dialogues in the classroom, if, for no other reason than they can then hear the learning' (2014, p. xvi).

While some studies support the importance of collaborative or co-operative learning, others point to its ineffectiveness when inadequately planned or implemented (Husband & Pearce, 2012) and caution that grouping students together was not sufficient to derive benefits (Johnson, & Johnson, 2009). Gillies' (2016) review of co-operative learning research concluded that both academic and social benefits were in evidence. Research confirmed the benefits (Roseth, Johnson & Johnson, 2008; Slavin, 2013; Slavin, Lake, Hanley, & Thurston, 2014), including gains made by low ability students working with more capable peers, which were similar to the gains made when working with a more capable adult (Rogoff, 1990).

The teacher's role is critical in providing structure and explicitly teaching the skills that promote student interaction and co-operation. High level cognitive talk was found to be infrequent in the absence of teacher influence. (Chinn, O'Donnell & Jinks, 2000; Meloth & Deering, 1999).

Kim and Hannafin (2011) discussed the necessity of adequate scaffolding for effective learning, and the relevance of teachers, technology and peers: 'through peer scaffolding, students confirmed answers, confronted and reconciled conflicts, encouraged and challenged further thinking, and shared perspectives' (p. 276). Certainly, the acceptance of scaffolding as an explanation of how human learning develops makes sense of the explicit teaching approach and provides a rationale for the inclusion of those various elements identified in this discussion. A student of linguistics, Gee (1989) described how different groups within a larger community use language in a particular way that is more or less characteristic only of

that group. He called the language of such a group their ‘discourse’. Examples of discourse are the way that teachers talk together, the way that primary school students talk together, the way that trades people speak on the job or the way that adults speak to babies. It is not difficult to imagine that in peer scaffolding the shared discourse of students may be a resource for creating clarity.

Edwards-Groves (2014) argued that the right type of student classroom talk was critical to teaching and learning. The outcomes facilitated by classroom talk include making student understanding and misunderstanding visible; clarifying thinking by putting thoughts into words; increasing intellectual dialogue; making learning robust and boosting memory; deepening reasoning; and developing scaffolded language. Given these outcomes, student discussion or dialogue becomes an important contributor to processes that are features of the explicit classroom: monitoring student understanding, instigating higher-order discussion through questioning, increasing clarity and consolidating and scaffolding learning.

In a successfully implemented dialogic classroom, students engage in exploratory talk, listen and react to one another and co-construct knowledge and understandings about text (Mercer, 1995, 2000), and work in co-operative groups productively (Mercer, Wegerif & Dawes, 1999). While the teacher ensures that students get feedback to their questions, their questions may be redirected to the class as one strategy to encourage dialogue (Muijs et al., 2014).

The critical role of the teacher in establishing a dialogic pedagogy in which students are supported in discussion with a greater intellectual focus was discussed by Edwards-Groves, Anstey and Bull (2014). Although the following description does not specifically describe student to student dialogue it is an illustration of the teacher’s role in building the prerequisite skills in students. ‘Talk moves’, discussed under the Questioning section, are described as ‘tools for building a dialogic learning environment’ (Edwards-Groves, 2014, p. 1). An

example of a talk move is found in the common questioning model in classrooms called the IRE or feedback model discussed by Cazden & Mehan (1989) and originally developed by Sinclair and Coulthard (1975) as the IRF model. Wilkinson, Murphy and Binici (2015) explain the use of extension to enrich classroom dialogue, including the use of talk moves. Edwards-Groves (2014) provides an example of this process: the teacher has a turn (initiates a question), the student has a turn (answers), then the teacher has a second turn (evaluates/gives feedback). A 'talk move' can serve to transform the third turn, the teacher's evaluation, into a second turn for the student, extending the original response. Various stimuli may extend the student voice, not only from the initial respondent but also from a range of peer contributions. Features of a dialogic pedagogy are all based on students listening to others, hearing what others say (in the sense of genuine dialogue), and at some point speaking. This strategy can support a genuine student-student dialogue and the opportunity for peer scaffolding discussed in Teaching and Learning Theory. In an effective explicitly taught lesson, students are encouraged to ask questions of the teacher and of each other, student dialogue is facilitated by the teacher, and students are encouraged to engage in higher-order thinking through the questions they ask and the dialogue that ensues. Students participate in cooperative work that is supported and structured to ensure focus.

Teacher Clarity

Hattie's (2009) meta-analysis ranked clarity eighth (adjusted effect size 0.75) of 138 strategies surveyed. The importance of clarity is perhaps best illustrated by the finding that students (and others, for that matter) are unlikely to waste effort in thinking activities (which are hard work and call on energy resources much as physical work does) until they can see a clear link between the effort required and the probability of success (Hattie & Yates, 2014).

The similarities between the concepts of clarity and explicitness have previously been discussed (see The Explicit Teaching Characteristic Observation Set). Fundamental to

explicit teaching is the teacher's ability to communicate clearly with students. Fendick (1990) found that clarity of speech is a prerequisite of teacher clarity, and one particular characteristic of expert teachers is the ability to explain complex ideas with clarity (Hattie & Yates, 2014).

Achieving cognitive match and organising ideas in a logical way are necessary in order to provide the clear, concise, unambiguous, detailed communication synonymous with clarity (Archer & Hughes, 2011; Hempenstall & Buckingham, 2016; Rosenshine, 2012; Simmonds, 1997). Shuy (1988) focused on classroom language in relation to distinct instructional phases, describing a range of communications including verbal and physical signals, explicit statements, tag-type utterances, and physical actions such as reorganising a room and changing the equipment. Such strategies can augment verbal communication and increase clarity.

Chesebro and McCroskey (2001) investigated the effects of teacher clarity and teacher immediacy on receiver apprehension (student anxiety about not understanding instruction), which they linked to lower learning outcomes caused by associated reductions in students' capacity to process information. They defined teacher clarity as 'the process by which an instructor is able to effectively stimulate the desired meaning of course content and processes in the minds of students through the use of appropriately structured verbal and non-verbal messages' (p. 62). Their work confirmed the broader view of teacher clarity (Anstey, 1998; Shuy, 1988) as a relational variable that was also involved in the clarity of the instructional process. They found that teachers who spoke fluently, stayed on task, and explained information effectively were associated with higher student achievement.

Civiliky (1992) raised the difficulty of separating the effects of teacher clarity from the effects of teacher–student relationships. Chesebro and McCroskey's (2001) focus on immediacy behaviours, such as positive teacher projection including enthusiasm, humour,

expressiveness, vocal variety, smiling, eye contact and gestures, provides some insight into a possible synergy of clarity and immediacy. Relational considerations were implicit in a further dimension of clarity raised by Kendrick and Darling (1990): students' initiative in seeking clarification. A classroom climate where students are confident in asking questions reflects relational considerations and an expanded notion of feedback (Hattie, 2009), both essential to the full development of the Explicit Teaching Construct. Consideration of the nature of student questions within the classroom may provide further insights into teacher behaviours that promote explicit teaching. Inasmuch as timely feedback is promoted as an essential element of explicit teaching, processes that support timely and appropriate questioning of and by students should be in evidence.

Low ability students ask fewer questions than high ability students as they get older, but strongly supportive teachers can encourage them to ask questions if the students can see that question asking is viewed as a positive attribute and not as a sign of low ability (Hattie & Yates, 2014). Clarity of communication, therefore, is not achieved only by the teacher matching expressive language levels to students' receptive language levels, but also by the teacher receiving feedback through student help-seeking and adjusting communication to achieve clarity.

How might clarity be visible in the classroom? While verbal communication is a foundation of clarity, other forms of communication, including gestures, images, written text, tactiles and a vast range of digital resources that promote clarity, are also valid. The sections on Feedback and Questioning have already addressed some of these characteristics.

Hattie (2012) observed that studies based on student evaluations of teacher clarity reported higher effect sizes than those of external observers; and also noted that students rated clarity highly, as a characteristic of high value teachers.

The literature suggests a wide range of strategies that promote clarity, based on measures of student perception in studies of teacher clarity that include those of Civikly (1992), Cruikshank (1985), McCrosky and Chesebro (2001) and Simonds (1997). First, language should be clear, concise and matched to the student's level of receptive language (Archer & Hughes, 2011; Cruikshank, 1985), and unambiguous (Hempenstall & Buckingham, 2016); and time should be taken to provide explanations that are clear and detailed (Rosenshine, 2012). Second, structural considerations should be considered: complex skills and strategies need to be broken down into smaller units to avoid cognitive overload (Archer& Hughes, 2011; Hattie & Yates, 2014; Rosenshine, 2012), application tasks can function as an introduction to the next step in the learning process (Creemers & Kyriakides, 2006), and connections between the steps in the learning process should be made to promote understanding (Creemers & Kyriakides, 2006; Hattie & Yates, 2014; Rosenshine, 2012). Third, strategies should be applied to support concept attainment. Explanations and demonstrations should be provided (Anstey, 1998; CESE, 2014). Demonstrating the application of skills using examples (ostension) and non-examples assists student understanding (Anstey, 1998; Archer & Hughes, 2011; Creemers & Kyriakides, 2006; Cruikshank, 1985; Hattie & Yates, 2014; Rosenshine, 2012; Simonds, 1997), and problem-solving techniques should be modelled (Creemers & Kyriakides, 2006; Rosenshine, 2012). When relevant, the skill or knowledge being taught should be presented in a way that represents a real-life situation in which the learning is applicable (Anstey, 1998). Fourth, a variety of teaching materials should be used to support communication. The teacher may provide summaries, key ideas or information on the board, provide worksheets or other printed text/illustrations, or use audio/visual resources (Anstey, 1998; Cruikshank, 1985; Hattie & Yates, 2014; Simonds, 1997). Hattie and Yates (2014) reported that humans learn

well from multi-modal inputs, and especially from a combination of images and words linked to prior knowledge.

Implicit in discussions of how clarity should present in the classroom is the use of student response as an indicator of success: for example, spontaneity and precision in following instructions are indicators of clear communication. Appropriate student responses to questioning provides evidence that both the questioning and the communication of concepts have been effective. Student questions may indicate an environment where the teacher is able to monitor and adjust levels of clarity. A lack of student response, however, does not necessarily imply a lack of clarity; for example, a range of behavioural factors might lead to a lack of spontaneity and precision in following an instruction.

Teacher clarity encompasses much more than teacher talk. It is promoted in the classroom through strategies associated with language use and communication, the structure of the presentation of learning, concept attainment strategies, and the use of supporting materials. The encouragement of student help-seeking strategies is essential to monitoring and achieving clarity in the classroom.

Lesson Content Organisation

The feature that most distinguishes Direct Instruction from the general explicit teaching approach is the provision of commercially sourced programmed curriculum materials (Luke, 2013). This feature fulfils one of the fundamental requirements for the successful implementation of the explicit teaching approach. CESE (2014), for instance, recommended the systematic delivery of basic skills taught in a sequence that permitted students to master the building blocks of skills such as literacy and numeracy. The need to both break learning content down into manageable units (Archer & Hughes, 2011; Rosenshine, 2012) and to move from the simple to the more complex, starting at the student's level of competence (Hempenstall & Buckingham, 2016) or instructional need (Archer & Hughes, 2011) represent

a clear direction, particularly for explicit approaches to early reading literacy acquisition (Bayetto, 2015; Meehan & Hammond, 2006). Hall (2002) pointed to 'primed background knowledge' (p. 4) as a necessary prerequisite, confirming the understanding that curriculum is best organised in a logical sequence (Archer & Hughes, 2011), where previous learning is progressively built upon. This is also consistent with the notion of 'the zone of proximal development' (Husband & Pearce, 2012), discussed under Teaching and Learning Theory, where new learning can be connected to and amplify a child's existing concepts through appropriate scaffolding. Hattie and Yates (2014) observed that while students can be motivated by 'knowledge gaps', they are put off by 'knowledge chasms' (p. 6).

A carefully planned and sequenced delivery of learning depends on timing and focus. Archer and Hughes (2011) suggest that lessons should be delivered briskly enough that structure and pace optimise on-task behaviour, but not at the expense of teacher explanation time (Rosenshine, 2012), nor of thinking time for students when responding to questions. Focus, too, is a characteristic of explicit teaching. Hall (2002) in her discussion of design principles for explicit instruction explained the relationship between 'big ideas', meaning concepts or principles that either singly or in combination form the focus for a lesson, and the 'strategies that are made conspicuous for students' (p. 3) that represent the scaffolding that supports the gradual development of independence. Skills need to be presented in the context of the concepts that they support (Anstey, 1998; Archer & Hughes, 2011). The teacher has a responsibility to maintain focus throughout the lesson, described by Simonds (1997) as 'staying on topic' (p. 289). Student understanding of the purpose of their learning can be supported through a maintenance of focus, often through a strategic placement of reviewing and reporting phases. Explicit teaching, then, draws upon logically structured curricula to provide carefully sequenced learning pitched at the level of student need. Lessons are focused, and relate knowledge and skills to the concepts being addressed.

Summary

This chapter has endeavoured to clarify a particular understanding of explicit teaching for the purposes of this study. A construct suited for use as an Explicit Teaching Characteristic Observation Set has been drawn from the literature. The context of the construct and the study has been clarified through an overview of relevant research into explicit instruction and discussion of a range of views of explicit instruction, a relevant model of teaching and learning and the role of the teacher within that model. The ways in which the construct is distinct from Direct Instruction has also been discussed.

An understanding of the nature of Explicit Teaching Characteristics in classroom practice has been developed and provides guidance for the following the stages of this study, specifically, the facilitation of data collection through observation, the description of individual teacher practice, the development of individual profiles and the comparative assessments within the participant cohort and between the low and high SES school participant cohorts. A wide range of relevant literature has been consulted across a number of relevant areas of study. From that literature it has generally been possible to reach consensus about a unified terminology for the description of the critical observable features of each characteristic.

Chapter 3, Methodology, discusses in detail the approach to the implementation of the study and the role of the construct in data collection and analysis.

Chapter 3: Methodology

The first chapter of this thesis introduced the background, purposes and context of this study. The second chapter reviewed the literature from several perspectives which include the background to the development of a functional construct for the collection and analysis of data. Significant matters raised were the high value placed on explicit teaching by many researchers and the identification of essential criteria within the various characteristics of explicit teaching that can facilitate discrimination between individual teaching practices and the analysis of the data. This chapter considers the relationship between the purposes of the study and the processes chosen to achieve those purposes, including the selection and recruitment of participants and the collection and analysis of data.

Theoretical Considerations

Creswell and Plano Clark (2007) emphasised the importance of acknowledging the philosophical assumptions underpinning any research. They applied the term ‘worldview’ in preference to ‘paradigm’ to describe these assumptions because ‘the various worldviews continue to evolve and there is no set standard for what they might be’ (p. 22). They identified four worldviews used in research according to shared characteristics: post-positivism; constructivism; advocacy and participatory; and pragmatism. Creswell (2009) provided descriptions of each:

- Post-positivism aims to establish objective truth, an understanding of cause and effect, through ‘careful observation and measurement’ (p. 7). This is achieved through quantitative studies that test questions and hypotheses concerning the relationships between variables.
- Constructivism, also referred to as social constructivism, generally involves individuals developing ‘subjective meanings of their experiences’ (p. 8).

Qualitative research enables the researcher to generate social meaning by interpreting the meanings of others.

- The advocacy and participatory perspective involves research that 'contains an action agenda for reform that may change the lives of the participants' (p. 9). Collaboration and participant voice are features of the qualitative research associated with this perspective.
- Pragmatism focuses on the research problem rather than on methods, using 'pluralistic approaches' (p. 10) known as mixed methods research. Various approaches may be used for the collection and analysis of data in order to achieve the best understanding of the problem.

This study will be informed by a pragmatist approach, considered best suited to establishing a concept of explicit teaching that is practical for describing teacher practices.

Four basic elements inform the research process: epistemology, theoretical perspective, methodology and method (Crotty, 1998). Theoretical perspective has been examined above in terms of world views. Epistemology, described by Crotty as the theory of knowledge underlying the theoretical perspective, is defined by Blaikie (2000) as 'possible ways of gaining knowledge of social reality' (p. 8). There are three epistemologies relevant to this type of study according to Crotty: objectivism holds that truth exists independently and is reached through rational processes and has links with a post positivist worldview; constructivism presents knowledge as the product of the interaction between human intelligence and experience; and subjectivism represents knowledge as an individual's or community's personal interpretation of the world. This study features a largely subjectivist epistemology, considered most applicable, given its focus on the work of a specific group, teachers, and its use of explicit teaching and its component strategies. It explores the meanings of concepts within the community of educators and provides insights into the

community's interpretation of the role of teachers. However, the flexibility of pragmatism allows an objective approach when this is of value, which in this study is the case when considering the evidence base for effective teacher practices.

This study has associations with both pragmatist and post positivist perspectives and their associated epistemologies, depending on whether it is viewed primarily as a descriptive study (Sandelowski, 2000) or an initiatory study (Hesse-Biber, 2010). However, at its core the study is descriptive. The key questions (next section) indicate the strong descriptive orientation of this study, which is to describe the concept of explicit teaching through the development of the Explicit Teaching Construct, to describe the explicit teaching practices of individual teachers, and to describe the similarities and differences between teachers within the study cohort and between high and low SES cohorts. These objectives are pragmatist in nature (Creswell & Plano Clark, 2011; Johnson & Onwuegbuzie, 2004; Tashakkori & Teddlie, 2009), focusing on the primary importance of the question and the consequences of the research, the use of multiple methods, and orientation towards practice and 'what works' (Creswell and Plano Clark, 2007, p. 23). Mixed method studies are commonly underpinned by pragmatist orientation (Tashakkori & Teddlie, 2003, and free researchers from the more rigid requirements associated with either postpositivism or constructivism.

While this study is primarily descriptive, it is still strongly connected to what might come after, the initiatory aspect of the study. When viewed as an initiatory study its alignment with a postpositivism worldview becomes apparent. Slife and Williams (1995) characterised postpositivism as being concerned with cause and effect, the interrelation of variables, detailed observation and measurement of variables, and the refinement of theories through testing. A major justification for this study is the view that the capacity to accurately describe explicit teaching is a necessary prerequisite to determining the precise nature of the

explicit teaching practices that result in positive student outcomes, a clear post positivist view.

The context of this study is best understood in terms of an acknowledgement of the ruling paradigm of school improvement evident in western education systems (Marshall, 2016). The strong (post)positivist influence (Carter & Little, 2007) is revealed through the prominent place that ‘standardised testing’, ‘evidence-based best practice’ and observable evidence in general have in this discourse.

A brief overview of this discourse serves to emphasise the prominence of the idea of cause and effect. Educational standards, represented by student performance on standardised tests, are perceived to be in decline (Thomson, De Bortoli et al., 2011). The most important element of the education system contributing to student outcomes is the teacher (Hattie, 2009). Many classroom teachers are thought not to employ sound, evidence-based, best practice pedagogies—in particular, explicit teaching strategies (Schmoker, 2006). In general there is a very limited knowledge of the specifics of teacher classroom practice within education systems (Elmore, 2000); and therefore the development of a strategy that gives classroom teachers the means to teach explicitly offers the promise of improved student outcomes (CESE, 2014; Coe et al., 2014; Dinham, 2014; Rosenshine, 2012).

This study explores a way in which critical elements of teacher practice may be described and compared within a clear and explicit teaching framework. As an initiatory study it seeks to provide clarity about the teacher behaviours that constitute explicit teaching, and about which explicit teaching strategies teachers use. This can provide the basis for further investigation into what works best, the prospect of ‘a practical significance’, which is a strong criterion for measuring the value of a study (Babbie, 2008, p. 124).

This study may be seen as a necessary preliminary to a quest for higher-order knowledge such as an understanding of the relative contributions of the various components

of an explicit teaching approach to high student outcomes and an understanding of the processes whereby teachers acquire the most potent explicit practices. Identification of preferred teacher behaviours must necessarily precede the study of their acquisition.

Ultimately, and beyond the scope of this study, is the aim to take a careful look through the classroom door to determine whether or not there is substance to the assertions of Schmoker (2006) and Dinham (2014) about the quality and nature of classroom teaching. This study demonstrates an approach to addressing the question in a limited way when considered in a local context, primary schools in the Department of Education, Tasmania.

The Key Questions

In order to address the general aims of the study three questions were posed and associated actions identified:

Question 1: How can explicit teaching practices in the literacy lessons of primary school teachers be described?

Question 2: What are the similarities and differences in explicit teaching practices evident in the study sample?

Question 3: Are there differences in the explicit teaching of literacy in low SES and high SES primary school classrooms?

With regard to its potential as an initiatory study in which a range of data is collected and further data created through analysis for the purpose of increasing clarity about explicit teaching practice, it is important to anticipate how the data may relate to further inquiry. As discussed in both the introduction and the literature review, while this study takes a broad view of explicit teaching, with the associated evidence of its efficacy (Ashman & Conway, 1993; Porter & Brophy, 1988; Rosenshine & Stevens, 1986), there are other views that take a tighter frame, such as Direct Instruction (Engelmann, 1998). In the case of Direct Instruction, quantitative research (Adams & Engelmann, 1996; Bereiter & Kurland, 1981–82; Gersten,

Keating, & Becker, 1988) has provided strong evidence of the approach's efficacy. Other studies have confirmed the importance of explicit teaching strategies including modelling, scaffolding and coaching (Aulls, 2002, Kirschner et al., 2006). Given that teachers are likely to demonstrate significant variations in their use of explicit teaching strategies (Anstey, 1998) data about the relative merit of specific repertoires can have great value. Is it necessary to adopt all the components of Direct Instruction in order to get the same widely reported positive results (Archer & Hughes, 2011)? Are particular explicit teaching strategies most responsible for high yields in desired student outcomes? The construct and processes developed in this study are envisioned as artefacts that can be used to profile individual teacher practices in order to group the teachers in order to compare outcomes and determine which practices appear to produce the best results.

Although a variety of quantitative and qualitative data is used to build a description of practice, the nature of the data and the small size of the sample limit the applicability of statistical analysis. However there is still a possibility of developing a substantive theory (Carter & Little, 2007; Gall, Gall, & Borg, 2007; Glaser & Strauss, 1967) as even if this study is too small for generalizable transfer, it may reveal principles that are applicable in similar contexts. The successful application of the research method in terms of useful outcomes suggests that the underlying theory about the applicability of the construct and process may be generalizable—and consistent with an underlying positivist perspective, facilitate the generation of evidence not only of 'what works' but also of 'what is'.

Research Methodology

The primary aims of this descriptive study are addressed through a cross-sectional mixed method approach that incorporates elements of both quantitative and qualitative research (Creswell, 2014). Although the methodology meets many of the criteria of qualitative research (Johnson & Christensen, 2008), the necessity of being able to turn

qualitative data into quantitative data (Hesse-Biber, 2010) for comparative purposes, as described later when addressing analysis, requires a mixed approach. The small set of participants was purposively sampled; data collection took place through interview and observation; attention focused on the features of teacher classroom practice, especially teacher talk; and the data is descriptive in nature. All of these reflect an essentially qualitative approach, even though the data was analysed to address quantitative questions of 'what', not the more qualitative 'why'. In her discussion of the merits of qualitative descriptive studies as a genuine and valuable methodology, Sandelowski (2000) argued the case for studies which typically use a 'reasonable combination of sampling, data collection, analysis and re-presentation techniques' (p. 334). However, this study's focus is on questions of 'what is to be found?' rather than 'what is there?—the latter being open to interpretation based on participants' perceptions. The intention of this study is to describe rather than explain, and the use of preselected variables derived from the Explicit Teaching Construct are attributes of a qualitative, descriptive study (p. 335).

The researcher took the role of a non-participant observer. The use of digital audio recordings of teacher classroom practice, in conjunction with notes taken in classroom observations, provided data with minimal manipulation of the research context. Some of the observational data was represented in quantitative measures of frequency and duration, and was used to describe the characteristics of the participating teachers. Analytic reduction (Gall et al., 2007) was used to explore the feasibility of establishing subgroups based on similar teaching behaviours within groups. These observations represent the major instrumental component, and although the possibilities of manipulative effects must be acknowledged, a number of strategies, which will be discussed in the context of the data collection, were employed to minimise any such effects.

Although classroom observation of any kind has some impact on the interaction being observed, there is evidence that in general terms, individual teachers still engaged in their typical pedagogical behaviour even when the observation was for the purpose of performance appraisal (Howard, 2010). Since the purpose of this study is to capture typical pedagogical behaviour, limited to a number of pre-selected criteria, harvested over multiple observations and validated through post-observation interviews, manipulative effects were considered to be minimal.

The semi-structured interview that followed each classroom observation was designed to gather basic participant data and complement the classroom observations. The basic elements of a semi-structured interview described by Bryman (2008) include an 'interview guide' (p. 438) or set of core questions; there is flexibility in how the interviewee may respond, and the interviewer is able to modify and supplement the core questions. The initial interview, the first of three, served to establish the validity of the observations. Babbie (2014) explained that 'validity refers to the extent that an empirical measure adequately reflects the real meaning of the concept under consideration' (p. 154). In this instance, the concept of teacher classroom practice, validity relates to the typicality of the events observed, the context of the learning with respect to units of study and other learning areas, connections to preceding and following lessons, and observer effect on the teacher and students. Less formal interviews following the second and third observation sessions similarly addressed validity concerns, in addition to establishing the lesson context.

Participants

Selection criteria. Three criteria strongly influenced the determination of desirable participant characteristics: first, they had to suit the context of the study, providing alignment between purpose and process; second, they had to offer the strongest likelihood that those teacher behaviours targeted in the study, that is, the preselected explicit teaching strategies, if

a part of the teacher's practice, would be displayed during data collection (Anstey, 1993a); and third, that they met the practical considerations of conducting the study. To this end the study focused on upper primary school teachers working in the Department of Education, Tasmania, Learning Service, Southern Region.

The Tasmanian state school system fulfils the contextual requirements of this study: in that it conforms to the nationally mandated Australian curriculum and assessment program, NAPLAN, and participates in PISA; it is subject to public scrutiny regarding student outcomes, particularly in the areas of literacy and numeracy; it acknowledges the efficacy of explicit teaching strategies in the classroom, evidenced in the documentation of the RTBCTG compensatory literacy program (Hay et al., 2011). The Anstey study (1993a), in part a catalyst for this study, found a considerable degree of variation between teachers with respect to the use of explicit teaching strategies. The choice of the participant group for this study provided an opportunity to investigate if there was similar variation in practice within a single system.

The Learning Service, Southern Region, comprises 58 primary schools, of which 46 were considered to be within reasonable travelling distance. The schools' community characteristics were an important consideration in sampling. The Index of Community Socio-Educational Advantage (ICSEA), was created by ACARA to enable meaningful comparisons of schools' performance. Based on the premise that parents' characteristic occupations and schooling have an influence on students' educational outcomes, the scale numerically represents the relative magnitude of this influence (ACARA, 2017). For the purpose of this study, ICSEA scores were the sole criterion for defining participant schools as low or high SES. The notion of advantage and disadvantage within school communities was represented through the application of a further measure, Distribution of Students (ACARA, 2015). The

Distribution of Students measure is a quartile report for each school generated by ACARA to reflect student background in terms of advantage and disadvantage.

The Tasmanian Department of Education introduced the RTBCTG compensatory project at the end of 2008, targeting primary school communities that had a high Educational Needs Index with a significant proportion of their students failing to achieve benchmarks in NAPLAN. The plan excluded small schools. The program was jointly funded by the State and Commonwealth governments, and in Tasmania, initially, focused almost exclusively on literacy. In addition to an investment in staffing, significant provision was made for professional learning with strong mandates reflecting an emphasis on explicit literacy teaching (see Questions of performance).

High and low SES. The index was constructed around an Australian mean score of 1000. The schools chosen for this research had ICSEA scores between 815 and 1166. Recruitment sought to achieve equal representation of teachers from schools that scored below the mean and schools that scored above it. This gave a shortlist of 34 schools, 17 from each category.

Based on 2014 data accessed from the My School site (http://www.myschool.edu.au), the 17 below-mean schools had ICSEA scores ranging from 815 to 936, and in each school students were over-represented in the lowest quartile (averaging 67% of the total students as opposed to the national mean of 25%) and under-represented in the highest quartile (averaging 2% of total students as opposed to the national mean of 25%). Conversely, the 17 schools in the advantaged sample had ICSEA scores ranging from 1029 to 1166 and were under-represented in the lowest quartile (averaging 9% as opposed to the national mean of 25%) and over-represented in the highest quartile (averaging 48% as opposed to the national mean of 25%). The contrast between the mean grade 5 NAPLAN reading scores (2014) of the advantaged schools (578) and disadvantaged schools (439) was consistent with the ACARA

position on the influence of social and economic disadvantage on student outcomes. This is illustrated by the trend evident in a scatter plot of the short listed schools' ICSEA scores and grade 5 mean reading scores (Figure 1).

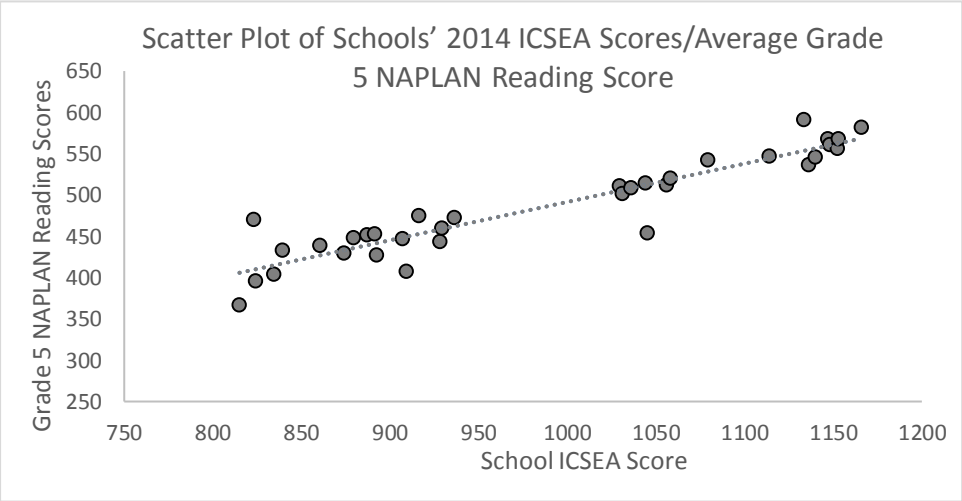

Figure 1. Scatter plot of school ICSEA scores against average Grade 5 NAPLAN reading scores, 2014

Participants for this study were recruited in equal numbers from both disadvantaged (low SES) and advantaged schools (high SES), creating an opportunity to investigate the possibility of a relationship between teacher practice and school SES. Six teachers, three females and three males were recruited from each SES cohort. Gender balance was preferred as a simple method of control.

Based on 2015 data accessed from My School (http://www.myschool.edu.au), the ICSEA scores for the five advantaged schools represented in the final project sample averaged 1130. The average grade 5 NAPLAN reading score was 555, compared to the national average of 499. Student distribution in the lowest quartile averaged 3%, and in the highest quartile, 59%. For the four disadvantaged schools, the average ICSEA score was 892;

the average grade 5 reading NAPLAN score was 441 compared to the national average of 499. Student distribution in the lowest quartile averaged 69%, and in the highest quartile, 1%.

Despite the difficulty encountered in the recruitment phase, which is discussed below, the modelling of the school population to provide a clear group of advantaged and disadvantaged schools using the ICSEA scores appears to have been robust, given the difference of 114 points between the grade 5 average NAPLAN Reading scores of the advantaged and disadvantaged schools, with the scores favouring the advantaged schools.

The project required the participation of twelve Tasmanian Department of Education (DoE) primary school teachers currently teaching grade 5 and/or grade 6 students in single stream or composite classes. Ultimately it was necessary to select teachers from a total of nine schools in order to achieve the desired number of participants meeting the predetermined criterion with respect to school ICSEA score and providing gender balance.

Grade levels. The choice of Grade 5 and 6 literacy classes for the teacher observations was influenced by a number of considerations. First, keeping a narrow grade level simplifies teacher comparison and eliminates the complication of instructional emphases that change over time. For example, where early childhood students might be learning to read, upper primary students may generally be expected to have become competent readers (Anstey, 1993a, pp. 59–60). Anstey (1993a) chose years 4 and 5 for her study of teacher talk and metacognition on the basis that the upper primary context would positively influence the presence of metacognitive instruction (p. 59). Similarly, in the choice of grades 5 and 6 for this study, it was considered that the balance of student reliance on teacher instruction, student capacity to work independently, and the development of oral and written language, and thinking skills, would present favourable conditions for the observation of the teacher behaviours targeted in this study and keep it within feasible parameters.

Primary school was a preferred option over high school, not only for the benefits of comparability with the Anstey study, but also simply because there were far fewer high schools in the targeted region: twelve within a practical distance, compared with 46 easily accessed primary schools. Such a significantly smaller field of potential participants would have presented a challenge in recruiting the desired balance of advantaged and disadvantaged schools. The choice of primary school served to increase the pool of potential participants.

Literacy classes. Although much of the literature takes a generic view of explicit teaching (Archer & Hughes, 2011; Hattie, 2009; Marzano et al., 2001; Rosenshine, 2012), meaning that it is viewed in the context of teaching rather than in the context of one subject, the choice of this study to focus on literacy lessons avoided the question of variations in teacher practice across subject areas (Campbell et al., 2003) and aligns this study with its context: the discourse on educational standards and teacher effectiveness which more often than not focuses on student performance in the area of literacy. Therefore literacy becomes a convenient vehicle for the study of explicit teaching.

Participant Recruitment

Sampling. A non-probability sampling method was used based on a self-selected sample moderated through purposive sampling methods including *typical case* and *criterion* sampling (Palys, 2008) in order to manage typicality and variation.

Initially the management of the sample included a requirement of equal participant numbers from advantaged and disadvantaged schools with a gender balance. Participants had to have had at least three years of classroom teaching experience to allow for practice consolidation, and to be teaching a composite 5/6 class. However, recruitment proved to be particularly difficult. After favourable responses from many school principals, information was forwarded to staff in 20 schools, in many cases reportedly accompanied by encouragement from principals to participate. Only one participant was recruited.

Two tendencies in school staffing and class organisation emerged as barriers to recruitment. First, a significant proportion of Grade 5/6 teachers in disadvantaged schools had fewer than three years of classroom teaching experience. Some disadvantaged schools had no 5/6 teachers with three years of experience. Second, the recruitment of male participants in advantaged schools presented a challenge as there was a preference in many larger schools to organise in straight (Grade 5 and Grade 6) rather than composite (Grade 5/6) classes. These trends, compounded by the small proportion of male teachers generally found in primary schools, represented significant barriers to the recruitment of the desired sample. Table 7 provides details of participants and their schools. Given these barriers, an ethics variation was submitted and approved, to allow the participation of teachers of Grade 5, Grade 6 and Grade5/6 classes regardless of their years of experience. By introducing the class variable and removing the teaching experience criterion, the potential for a more representative sample increased. For example, low SES schools had a predominance of less experienced teachers compared with high SES schools, while it was more common for high SES schools to have straight classes in grades 5 and 6. This enabled 34 potential schools to be identified; and they were organised into deciles on the basis of ICSEA scores. The deciles indicating SES status are provided rather than ICSEA scores, to ensure the anonymity of participants and their schools.

Ideally, where the intended recruitment process is through moderated self-selection, the researcher is able to recruit a surplus of willing participants and is able to further manage the sample for typicality and variation for criteria such as age and experience. It was not the case for this study. The characteristics of the sample are reported below and represent the first twelve recruits who met the requirements of the study.

Table 7

Sample Profile: Participant Characteristics

Participant Code	School SES High/Low and Decile	Gender M/F	Age bracket	Teaching experience (years)
Teacher 1 (T1)	High:10	F	31–40	14
Teacher 2 (T2)	High: 10	M	<31	6
Teacher 3 (T3)	High: 9	F	>51	31
Teacher 4 (T4)	High: 9	F	41–50	20
Teacher 5 (T5)	High: 10	M	>51	35
Teacher 6 (T6)	High: 10	M	41–50	25
Teacher 7 (T7)	Low: 3	F	>51	9
Teacher 8 (T8)	Low: 4	F	31–40	10
Teacher 9 (T9)	Low: 4	M	31–40	9
Teacher 10 (T10)	Low: 2	F	<31	2
Teacher 11 (T11)	Low: 3	M	31–40	12
Teacher 12 (T12)	Low: 2	M	41–50	9

Recruitment. The researcher initially e-mailed a letter to principals (Appendix D) seeking permission to conduct the study in their schools and to enlist their assistance in recruiting teachers. This was accompanied by, and followed up with, a telephone call to the principal, and once willing participants were identified preliminaries were conducted through a combination of e-mail, telephone and face-to-face meetings.

Information letters were provided for teachers (Appendix E: Teacher Participant Information Sheet) in the initial electronic mailing. Consent forms (Appendix F: Teacher and Principal Consent Forms) were provided for participants and principals. Multiple hard copies of forms and information letters were made available at the principals' requests. Parent/carer consent was not sought for student participation, since the teacher was the subject of this study, but at the discretion of the principal parents/carers could be invited to raise concerns,

and negotiate an alternative placement for the duration of the observational session should those concerns not be resolved.

Following this initial process which went through the school principals, many teachers approached the researcher through other avenues as awareness of the project filtered through the Learning Service professional community. In each case, the process was formalised by providing information to the principal and seeking permission for the teacher to participate.

Ethical Considerations

This study focuses on the very core of the educational endeavour, teacher effect in the classroom. It is also a response to legitimate political and community demands, and as such offers potential benefits that substantially outweigh potential risks. Its design and conduct were influenced by the necessary processes of securing approvals from the Human Research Ethics Committee (Tasmania) and the Tasmanian Department of Education. Given the focus of the study, two considerations were particularly influential in shaping the study. First, the teacher activities that are the subject of the study were observed in the classroom setting. Children were an integral part of the activity that was observed. In accordance with the principles outlined in the *National Statement of Ethical Conduct in Human Research* (Australian Government, 2007b, Chapter 4.2), protocols and processes were developed to ensure that any potential risk to students would be minimal. To this end, ensuring the privacy of individual students, sound was chosen rather than video to record the lessons, and secure storage protocols were put in place.

Second, the study relied on the willing participation of the subjects (Australian Government, 2007a). A guarantee of confidentiality was an important element in presenting a proposal that would be acceptable to potential participants. This consideration had implications not only for security in the storage of data, but also for the content of this report.

For example, deciles rather than percentiles were chosen to describe school socio-economic status in order to maintain anonymity.

The proposed study complied with the requirements of section 4.2.11 of the *National Statement of Ethical Conduct in Human Research* (Australian Government, 2007b) and ethics approval was granted (H15469 –H0015469). Compliance included the development of protocols to protect individual identity, including the management of individually identifiable and re-identifiable data, preparation of clear preliminary explanations of the study for participants, provision of access of participants and school principals to the findings of the investigation, and data management and storage protocols.

Data Collection

Instrumentation: observational tool. The primary data gathering instrument for this study was a direct observation instrument, specifically, a category observation instrument as described by Foster and Whittington (2010) in their discussion of approaches to measuring the use of instructional principles in the classroom. It comprised four structural components:

- A set of operationally defined categories of behaviour;
- rules for observation and coding;
- a standardised recording system;
- a series of instructions for organising and analysing the observational data (Martin, 1977).

The following discussion first addresses the construction of the set of defined categories of behaviour before considering coding and recording. Data organisation and analysis is treated in a later section of this chapter.

Explicit Teaching Characteristics Observation Set. Anstey's 'fine grained study of teacher talk, lesson structure and materials' (1998, p. 206) made observations of the literacy lessons of 25 primary school teachers. The study documented teacher practices and identified

three discrete pedagogical groups, which she labelled the ‘pedagogy of schooling’, the ‘pedagogy of literacy’ and the ‘pedagogy of literacy learning’ (Anstey, 1993a, p 309). In later work Anstey (1998) drew from the ‘pedagogy of literacy learning’ group of lessons a set of characteristics which she identified as ‘having potential to provide explicit information about cognitive aspects of literacy tasks’ (p. 206). Anstey argued the case for the explicit teaching of literacy, citing a range of research from which she synthesised a set of seven characteristics of explicit teaching in literacy (Appendix C: Teacher Clarity Descriptive Frameworks).

In associating those seven characteristics and teacher behaviours derived from her classroom observations, Anstey laid a foundation from which to consider a teacher’s pedagogy in terms of explicitness. This model of explicit instruction, in addition to clarity in teacher talk, included a set of clear structures, explicit purposes, clarification of the inner world of thought through metacognition, and strong connections to student context and real-world applications.

A wide range of literature related to explicit instruction, including a representative sample of contemporary works (CESE, 2014; Coe et al., 2014), was consulted to identify the essence of explicit classroom instruction, and target behaviours for observation were established. Of particular relevance were two reviews of the evidence for instructional effectiveness: the report by the Centre for Evaluation and Monitoring (Coe et al., 2014) identified six components of great teaching, of which *Quality of Instruction* detailed a highly explicit approach to classroom instruction referencing Creemers and Kyriakides’ (2006) *Dynamic Model of Educational Effectiveness* (p. 16) and Rosenshine’s (2012) *Principles of Instruction* (p. 14), among others; The Centre for Education, Statistics and Evaluation (CESE) report (2014) nominated explicit teaching as one of a number of essential practices.

Comprehensive details of the full range of literature consulted in the development of the Explicit Teaching Characteristics Observation Set (Table 3) are provided in Chapter 2.

The variety of forms that an explicit teaching approach may take has been discussed. In assembling this construct, the fundamental mechanism at work in the approach, creating transparency for the learner (Luke, 2013), has been a constant consideration. In this study explicit teaching is viewed as a process of communicating two general types of information to the student. The first, concerning the learning process, is procedural information, and the second, which gives information about purposes, applications and connections, is contextual information. Procedural information concerns knowing what to do, how to do it and when to do it; these are also described as propositional, procedural and conditional knowledge (Anstey, 1998). Contextual information relates to the purposes, uses, meaning and connections to the class-work, the student's world and the world at large (Anstey, 1998); in other words, how it is useful, why it is being done, and how it fits in the scheme of things.

The explicit teaching observation characteristics are set out in Table 8, with some information that describes and qualifies their use in the observation. The Explicit Teaching Characteristics descriptors provide indicators for the measure of the concept of explicit teaching. Bryman (2008) stated that 'in order to provide a measure of a concept … it is necessary to have an indicator or indicators to stand for the concept' (p. 144). He discussed the use of indicators to record 'individuals' behaviour using a structured observation schedule' (p.144) and made a distinction between measures and indicators, asserting that 'we can treat the resulting quantitative information as if it were a measure … an indicator is employed as though it were a measure of a concept' (p.145).

To describe the ease with which the indicators represented the explicit teaching behaviours being measured, the researcher adapted the term 'observability', normally applied

in the field of control theory, where it is used to measure how well information about external outputs can be used to infer the internal state of a system (Kalman, 1961).

Table 8 provides comments relating to observability and event type. Observability refers to how easily the teacher behaviour that constitutes the target characteristic can be observed. Observability is rated in terms of inference, referring to how directly the observed behaviour relates to an explicit teaching characteristic. In some instances higher levels of inference are required. However, in all cases indicators have been drawn from a strong literature base.

Table 8

Explicit Teaching Characteristics Observation Set: Observability and Event Type

Number	Characteristic	Observability	Event Type
1.	Structure: Instruction is organised into sequential phases: Focus; Identifying; Practice; Transfer; and Concluding. Review and Reporting phases are regularly inserted through the lesson.	Low to medium inference, depending on class sub-grouping.	Usually single occurrence; multiple phases possible.
2.	Gradual Release of Responsibility: Generally, the teacher role is explanation; modelling and demonstration, and assistance and guidance. A gradual release of responsibility to the student takes place as student fluency develops.	Low to medium inference, depending on class sub-groupings engaging in different phases.	Usually single occurrence; repetitions possible.
3.	Context: The teacher provides information about the purpose of the lesson, how the content can be useful and relevant in learning and real-world applications, and makes connections to other learning.	Low inference.	Usually single occurrence; repetitions possible.
4.	Process: The teacher provides information about what the students will be doing, and how they will demonstrate their learning and success criteria. Learning goals are clearly articulated, enabling students to self-monitor.	Low inference. Student self-monitoring strand has higher inference.	Usually single occurrence; repetitions possible.
5.	Monitoring: The teacher monitors student learning in order to give and receive feedback and responds with review and clarification, targeting individuals, small groups and large groups for instruction as necessary.	Low inference. Receiving feedback evidenced by non-repetitive review.	Ongoing.
6.	Feedback: Feedback that is instructional and timely is provided to students in practice and transfer phases. In a coaching role, the teacher assists the student to close the gap between performance and learning goals.	Low inference.	Ongoing teacher behaviour.
7.	Knowledge: Teaching features cognitive and metacognitive processes. Attention is given to propositional, procedural and conditional knowledge. Teacher talk includes declaratives.	Low inference. Multiple observation strands.	Single and multiple.
8.	Metacognition: Metacognition and Self-regulated Learning skills are explicitly taught. ‘Thinking out loud’ features in discussion.	Low to medium inference.	Single and multiple.

9.	Questioning: Questions are frequently asked by the teacher and students and include a mix of high- and low-order questions. The teacher both answers student questions and redirects them to other students to answer.	Low inference.	Ongoing.
10.	Student Dialogue: Students engage in well planned and structured dialogue with one another.	Low inference.	Ongoing.
11.	Clarity: The teacher communicates with a clarity that is matched to student understanding, and uses appropriate support materials and demonstrations to increase clarity. Students are able to ask clarifying questions.	Medium inference. Student understanding is less transparent.	Ongoing.
12.	Focus: While individual skills are taught, they are always explicitly related to the development of concepts. The teacher maintains focus on the topic.	Low inference.	Ongoing.
13.	Curriculum: Learning is presented at a suitable level for the student, based on a sequential curriculum which identifies the necessary order for skill and concept development.	Low to high inference.	Ongoing.

Those characteristics concerning clarity and establishing a climate that encourages requests for clarification (Number 10, Clarity) are based on observed teacher behaviours as well as, or even alternatively, on observed student responses to teacher behaviours. Some characteristics are conceptually more complex and required observations across several strands. For example, Number 7 (Knowledge) requires observation of a range of elements of teacher talk and lesson content. Number 3 (Context) could relate to teacher behaviours not actually observed, but conveyed directly and indirectly through teacher talk. The column 'Event Type' notes that some explicit instructional behaviours may occur as single events in a particular context such as an introduction, while others are ongoing, such as regular feedback, monitoring and clarification.

Table 9 represents the pro-forma used by the researcher to record observations. In practical terms the initial harvest of data through observation was quantitative, mapping out significant events chronologically and noting their specific characteristics. 'Significant event' means the presence or evidence of a teacher behaviour that matched an observation category. 'Quantitative data', generated by 'measuring things' (Minichiello, Aroni, Timewell, & Alexander, 1990, p. 5), in this study refers to measures of frequency and duration, including the presence or absence of a targeted characteristic.

It was anticipated that the density of characteristics would vary significantly through the lesson being observed. For example, during the identifying phase a number of characteristics may present over a very short period of time, especially those that are generally one-off, such as the discussion of purpose, context, connection to other learning, expected outcomes and applications. During the practice or transfer phases, observable characteristics may present occasionally or frequently, as the teacher may focus on providing individual feedback or monitoring for understanding.

Qualitative data included descriptions of explicit teaching practices such as feedback (Table 15) and metacognition (Table 17). The tables providing levels of alignment for each characteristic concern teacher behaviours that might be observed where that characteristic is in teacher practice. The audio capture of data is an essential element in the methodology since it enabled the 'rater' (observer) to deal with a complex observation set. While some detail could be manually recorded during quieter phases of the observation, the sound recording allows a deeper interrogation of the data in keeping with the complexity of some of the observation categories. The facility for data review also supports rater reliability not only with respect to category accuracy but also with respect to the accuracy of the quantitative data.

Table 9

The Observation Record

Participant

Note 1

Time **Note 2**	3 phase Identify, practice, apply I, we, you	Contextual info Purpose and use	Learning information: Process/ goals	Feedback	Monitoring for student understanding	Metacognition; cognitive: theory, procedural, applied	Connections: previous learning, social, real life	Interactive talk: student, teacher	Clarity	Student questions encouraged	Skills relate to concept	Focus
9.05		**Note 3*** E.g. Makes narrative more interesting										
9.25 9.27	* E.g. Teacher models use of adjectives									* E.g. Thanks student for question		

Note 1. A coded identifier ensures confidentiality for the participant.
Note 2. The time of a 'significant event' is recorded in the first column.
Note 3. The observation of a significant event is noted by a time entry, and some details are recorded next to an asterisk marking the relevant column.

The Observation Record column headings generally correlate with the 13 items in the Explicit Teaching Characteristics Observation Set, but items 1 and 2 are combined, both being concerned with structural matters; item 10 is split, into clarity and students' questions, and data concerning item 12, reference to a sequenced curriculum, was gathered through the semi-structured interview and not in classroom observations.

To ensure consistency over the course of 36 observations, procedures were established for coding and recording:

- The observation would commence at the beginning of a literacy lesson and continue to the end of the lesson or the end of a series of lessons that constituted a literacy block (a block of time devoted to literacy in a day).
- The researcher would take the role of a non-participant observer, having explained his role to the class as necessary, as a passive, non-threatening classroom presence.
- All significant events would be recorded and the time of their commencement noted.
- All classroom observations would be backed up with the audio record to ensure a comprehensive and accurate data collection.
- The observer would be consistent in the record of technical details and the use of coding over the course of the observations.
- Where a teacher was consistent in the approach to individual characteristics one detailed record would be made, although each significant event would be noted.
- The protocols established for the security and confidentiality of the data would be followed.

Teacher interviews. The second aspect of the data collection involved semi-structured interviews (see Appendix G: Semi-Structured Post-Observation Teacher Interview). The interview instrument comprises two parts. The first part, largely a survey, collected

demographic data about the participants, primarily for the purpose of sample description.

The second part primarily concerned the validity of the observational data and the typicality of the observed lesson in terms of the teacher's practice and the students' participation and behaviour. It also provided information that contextualised the lesson in terms of its learning sequence and theoretical framework. This section of the interview was semi-structured (Bryman, 2008) inasmuch as all the questions were discussion starters with scope for elaboration and clarification. There were seven of these:

- Does this lesson relate or connect to any previous lessons or following lessons? If so in what ways?
- Do you think that this lesson was typical of your approach to teaching?
- Was there anything that you did that was different from what you normally do in class?
- Were there things that you characteristically do that were missing from your lesson?
- Was student participation and behaviour typical?
- Do you think there was any impact on students or yourself arising from having an observer in the class?
- Any other comments?

The second schedule of questions was reiterated following the second and third observations and was, at times, quite informal, especially when it was obvious to both parties that the questions had been answered in the initial interview. For example, where both teacher and student behaviours were highly consistent across lessons and the particular lesson had been adequately described through the provision of information about the lesson's sequence, context and connection in the first interview, further discussion was largely unnecessary.

To enable the researcher to focus on the teacher being interviewed, the first interview was voice recorded. It was then transcribed and e-mailed to the participant for verification,

generally within 24 hours. It was not considered necessary to record the following two interviews as they were used to check typicality and lesson context, although relevant notes were appended to the observation notes.

The Data Collection Procedure

Scheduling. The survey was conducted in the second and third terms, when a mutual familiarity between teacher and students had been established. Class management issues had either been addressed through the regular processes and structures used by the teacher, or had become an ongoing aspect of the classroom environment. The fourth semester was avoided because of the typical business that characterises that time of the school year, including summative assessments and reporting. Classroom observations at that time or at the beginning of the year could have been viewed as intrusive.

The duration of observations depended on the individual practice of the participating teacher. Generally an observation lasted from 45 to 60 minutes, although a small number of observations were shorter than 40 minutes. Literacy was often taught in a block of up to 90 minutes in the morning, and the researcher would remain in the classroom for the duration. The observation was made over that part of the block that the teacher had identified as a discrete lesson. Transitions, meaning the times when the class moved from the completion of one lesson to the commencement of another, were clearly indicated by changes in strands (e.g. language, literature, literacy), sub-strands (e.g. text structure and organisation, language variation and change) or language modes (e.g. reading, writing, listening, spelling, grammar) (ACARA, 2018).

The observations were conducted over a period of 17 weeks in terms two and three in 2016. In most instances the sessions were organised via e-mail, in some instances via telephone, and in one case by a preliminary face to face meeting. Given the widespread practice of timetabling a literacy block in the mornings, only one observation was possible

per day, with two exceptions when observations of two teachers could be made, one before and one after morning recess. The observations of three participants were completed in a three- to four-day block; four participants were completed in a block of seven to nine days, and the remaining five participants in a block that extended from 15 to 50 days. The final observations of three of this last group were extended due a variety of circumstances, beyond the term two break. Therefore these observations fell well outside the period of up to two weeks originally suggested in the researcher's preliminary communications (Appendix E: Teacher Participant Information Sheet).

The interviews were scheduled as soon after each observation as practical. The first interview was commonly conducted during recess or during a teacher release period following the observation. For some the researcher returned to the school following student dismissal, or conducted a telephone interview. The second and third interviews were relatively informal and brief, the answers to the focus questions often being quite obvious, given the strong consistency observed over the three observations for each participant. They were generally completed at the end of each observation.

The observations. Two assurances were given to participants in the recruitment process: that the identities of the participants would remain confidential in all published material arising from the study, and that the study would observe similarities and differences in practice, describing individual practice in terms of alignment with the principles of explicit teaching, but would not draw conclusions about individual effectiveness. It was deemed necessary that from the outset the researcher distanced the study from any notion that the participants would be judged in any way, or that they would be required to be involved in professional learning.

Care was necessary in the management of manipulative effect, particularly where observations were concerned. It was possible that, in the process of formalising and

scheduling observations, a teacher's conception of the lesson to be delivered might be affected. Howard (2010) noted, what would be observed was what the teacher decided was 'appropriate for that particular situation' (p. 328). O'Leary (2006) reported a tendency for teachers to shape their teaching to meet an observer's expressed aims, in other words, to provide what the observer hopes to see. This created a dilemma for the researcher in as much as a balance had to be struck between providing enough information to ensure that the lesson phases observed were comparable for all participants, but not so much that the participants attempted to shape their teaching to their understanding of the observer's expectations. In the case of this study, the diversity of understanding of what explicit teaching might mean was also a complicating factor. As noted in earlier chapters, there is a range of interpretations of what constitutes explicit teaching, as well as a range of labels applied to what are essentially explicit approaches to teaching (Hattie & Yates, 2014). It is not unreasonable to expect that teachers may have differing notions of what the observer is hoping to see, and respond accordingly in the design of their teaching programs. Clarification provided about the nature of the teacher activity that would be observed. The information provided to principals and teachers in the initial contact contained this statement:

The purpose of this study is to explore the current practices of classroom teachers in the area of literacy with respect to explicit teaching. For this purpose 'explicit teaching' is viewed as the activities and strategies employed by the teacher to promote clarity for students about their learning (see Appendix E: Teacher Participant Information Sheet).

The observation sessions and follow up interviews were discussed with the teacher to resolve concerns and establish the conditions whereby the researcher could unobtrusively make observations. The researcher sought to be sensitive to school term dynamics which may have included periods of classroom routine consolidation, assessment and reporting

focuses, as well as individual school celebrations, cultural events and programs that impacted on the regular classroom program.

Preliminary discussion with each participant provided the opportunity to reinforce a shared understanding that the aim of the observation was to be able to describe what the teacher normally does and how it might relate to a framework of explicit teaching developed by the researcher for that purpose. It was also stressed that nothing special needed to be prepared, just the usual lesson, which might include an introduction to the subject of the lesson and the learning activities through which the students acquire the relevant skill or knowledge and then practise or apply that skill or knowledge if that was the model that the teacher generally used.

Three lessons for each participant were observed. In order to make comparisons between teachers, it was necessary that at least one lesson observed for each participant had the components described above. The data presented in the Results Chapter were drawn from one selected observation of each participant, twelve in total. The decision to use data from only one observation is discussed in more detail in the final chapter (see Conclusion: Limitations of the Study). While the first observation generally provided the data for analysis, there were exceptions where the first observation did not exhibit the required components and an alternative was selected. These are noted in the Results chapter.

Using three observations did serve to confirm for the researcher the typicality of the teacher practice presented in the observation that formed the basis for the participant profile. On balance judgements were made by the researcher about typicality based on the consistency of the participant's teaching behaviours over the course of the three observations. While classroom and student management behaviours have not been identified as an element of the Explicit Teaching Construct, they were considered a useful criterion for

the judgement of typicality. The criteria used to determine typicality, either through the presence or absence of a behaviour, were:

- The use of recognisable phases, including those that reflected the GRR model;
- Management procedures including: classroom organisation, behaviour management processes, dialogue management, transition management, student materials, focussing strategies, and related routines;
- Teacher talk including the use of: declaratives, questions, metacognition, feedback, and humour;
- Use of technology and materials;
- Monitoring behaviours.

In some cases, participants displayed a particular idiosyncratic behaviour that confirmed typicality. For example, one participant with an interest in creating a thinking classroom consistently used sophisticated thinking strategies with the students; another used drama to engage students, others exhibited a strong use of humour. Although different lessons in a sequence of lessons may emphasise different teacher roles, such as monitoring, feedback, reporting and review being prominent in a lesson for the publication of writing, consistency in teacher practice and repertoire can be observed. Similarly, consistency in student participation can be a clue to typicality and provide additional evidence of the nature of observer influence.

The researcher arrived in the classroom before the lesson commenced, was introduced, and usually explained to the class that his purpose was to see the different ways that teachers taught their classes. During the lesson the observation instrument was used to record checks and comments (see Table 9), depending on the requirements of each category. An audio recording was made to supplement the observation record, particularly for those times when data overload made spontaneous manual recording challenging. It allowed the researcher to

review, revise, recheck and moderate the more complex qualitative data in the interest of the reliability.

Information Security

In line with assurances given to the participants and participating schools, protocols were established to secure data, particularly re-identifiable and individually identifiable data, and covered both the classroom observations and the teacher interviews. Raw data included classroom observational records, classroom audio recordings, teacher interview audio recordings, and transcripts. Data were coded so that it could be identified only by the researcher, and the coding key was stored on a password-protected computer. The coded data were stored separately on a password-protected computer. Only the researcher has the facility for re-identification and identification.

Given the possibility of student names and other identifiers being captured in the recording, the audio files are to be erased at the completion of the data extraction process. The de-identified data will be destroyed within ten years of the completion of the project.

Rating, Reliability and Validity

Babbie (2014) discussed the complexities associated with the operationalisation of concepts in research design. He discussed the challenges involved in being precise and specific, to ensure the reliability of the data collected, while still allowing for the ‘subtle nuances’ (p. 158) that inform many interesting concepts and can strengthen content validity. Underpinning the validity of this study is the comprehensive nature of the explicit teaching framework that forms the basis for the observational data collection. Construct validity, or ‘the degree to which a measure relates to other variables within a system of theoretical relationships’ (p. 156) is critical to the relevance of this study. Dingwall (1997) noted that while observation eliminated the problem of interview variation, observers were selective; a

view that emphasises the importance of the clarity and relevance of the Explicit Teaching Construct.

Comprehensiveness is key, and has been emphasised in the literature review so that all acknowledged explicit practices could be identified and described for each participant. The robustness and validity of the construct is demonstrated through its ability to generate personalised explicit teaching profiles, to describe similarities and differences in practices, and to make generalisations. Also of critical importance to the validity of this study was the assurance that the practice being observed was typical of that teacher. The semi-structured interviews, and the length and number of observations (Creswell, 2014) contributed to that assurance.

Reliability and validity were addressed through the management of both data collection and data processing. All rating was carried out by a single researcher, so intra-rater reliability was not an issue. The audio data offered an opportunity to use a 'test-retest' strategy (Babbie, 2014, p. 52) to check reliability, or the consistency with which the data was gathered, and the consistency with which it was interpreted. The researcher monitored the collection stage through the post-observation interviews, albeit dependent on the subjective assessment of typicality by the participant. In addition, the observation data, including the audio record, represented a source upon which judgements about contextual consistency could be based.

This study does not entirely align with any one established typology; however, in common with a convergent approach (Creswell & Plano Clark, 2011) the challenge to establishing validity was to successfully merge two different sets of data (Creswell, 2014). In this case, both qualitative and quantitative data were collected for each participant, and different approaches were often taken to describing different characteristics. It was necessary to either describe the characteristics quantitatively or to impose qualitative descriptions that might be transformed into a quantitative description. This response arose from the importance

of the individual components of the Explicit Teaching Characteristic Observation Set, each being discrete but together contributing to transparency for students in their learning.

Data Analysis

The data collected had relevance to different but related purposes:

- The observational data addressed the core purpose of the study, the description, comparison and categorisation of the explicit teaching practices of the participants as individuals and in SES cohorts;
- Some interview responses provided evidence of the level of validity of the observational data.

Babbie (2013) observed that the key to analysis of qualitative data was 'the willingness to search for, and the ability to recognise, meaningful patterns among variables' (p. 387). Consistent with this view, the observational data was initially processed by applying three quantitative measures, frequency, duration and sequence, to the significant events.

The seven stage model by Onweugbuzie and Teddlie (2003), was particularly relevant in this case. Not all stages had the same significance in application; nor were all necessarily used in the order presented here:

- data reduction: through statistical analysis of quantitative data or summarising qualitative data;
- display data: reducing the quantitative data to tables and the qualitative data to charts and rubrics, for example;
- data transformation: transforming qualitative data into quantitative data (i.e., quantitising qualitative data) or vice versa (i.e., qualitising quantitative data);
- data correlation: correlating the quantitative data with quantitised qualitative data;

- data consolidation: combining both data types to create consolidated variables or data sets;
- data comparison: comparing data from different sources;
- data integration: integrating all data into a coherent whole (Creswell & Plano Clark, 2011, pp. 213–214).

Given the variations in observability and characteristic type noted in Table 8, the initial exploration of the observational data indicated a need for differential treatment of individual characteristics. In some cases there were significant variations in the degree of participants' application of a particular characteristic; for example, feedback could be simple or complex, with far-reaching implications for learning outcomes (Hattie & Timperley, 2007).

Displaying data in graphs and tables provided functional options for processing the observational data set (Miles & Huberman, 2014), and variations in frequency, duration and sequence became visible. The use of tables and rubrics captured important variations in practice and ultimately contributed to the integration of data into individual participant profiles, participant cohort profiles, and the development of a basis for categorisation.

High-impact strategies. Mapping and focused descriptions gave indications of the feasibility of placement of participants on a continuum of explicitness. An approach was developed to generate greater descriptive detail through the identification of seven strategies considered to have particular significance in their contribution to student outcomes, and that were either pivotal in the theoretical framework underpinning explicit teaching or were affiliated with a strong evidence base. Those chosen were representative of their type, and were not the only strategies that met the above criteria (student outcomes, key elements in theoretical framework, and strong evidence base). They are referred to as high-impact strategies for the purpose of this study:

- using the GRR model: considered fundamental to the theoretical framework underpinning explicit instruction (Husband & Pearce, 2012; Roe et al., 2009; Slavin et al., 1996);
- providing clear success criteria: coming within the area of 'clearly understood goals', this has been presented as an essential element in explicit instruction (Hattie, 2009; Hattie & Gan, 2011, Husband & Pearce, 2012; Muijs et al., 2014) specifically associated with higher student achievement (CESE, 2009, 2012; Wiggins & McTighe, 2005), and also specifically associated with 'closing the gap' in effective feedback (Nicol & Macfarlane-Dick, 2006);
- providing feedback at process and SRL levels: important parts of the necessary element of feedback to realise the high learning gains reported in research (Hattie & Timperley, 2007; Marzano et al., 2001; Nicol & Macfarlane-Dick, 2006);
- addressing three types of knowledge: propositional, procedural and conditional: necessary if lessons are to be meaningful in terms of utility and of transfer and application (Anstey, 1998; Hall, 2002; Land, 2001; Simonds, 1997);
- embedding 'thinking aloud' and SRL: associated with high gains in student learning outcomes when maintained in classroom learning processes (Hattie, 2009; Husband & Pearce, 2012; Muijs et al., 2014);
- questioning that is high frequency, with a balance of high- and low-order questions, and following a Socratic approach: the necessary characteristics of questioning to promote student outcomes, especially related to cognition (Husband & Pearce, 2012; Pashler et al., 2007; Rosenshine, 2012);
- using many examples: associated with promoting clarity and strong concept attainment (Archer & Hughes, 2011; Creemers & Kyriakides, 2006; Hattie & Yates,

2014, Rosenshine, 2012) and also linked with strong student learning outcomes (Haystead & Marzano, 2009; Marzano et al., 2001).

The homogeneity of the sample influenced the viability of this phase of the study. A group of highly explicit teachers exhibiting many of these characteristics and a group of non-explicit teachers exhibiting few of these characteristics would have been ideal, but this was not the case, meaning that discrimination with respect to the implementation of characteristic specific strategies became an important element in the development of individual teacher profiles. Insufficient variation meant that it was not possible to place participants on a continuum from non-explicit to highly explicit pedagogies. All participants exhibited a largely explicit teaching practice, so the detail of participant implementation of the characteristics became the basis for comparison. The literature makes frequent reference to the relative merits of strategies within characteristics, making possible the development of a framework (see Appendix I: Summary of Explicit Teaching Characteristics Evident in Participant Practice) for the assignment of one of three levels of alignment between participant practice and each characteristic (see Tables 10–22, below).

The tabulation and consequent integration of interview data relating to typicality made it possible to judge the strength of the conclusions about variation in practice that were drawn from the data set.

Data analysis procedures. The three research questions determined the structure of the analysis:

1. How can explicit teaching practices in literacy lessons of primary school teachers be described?
2. What are the similarities and differences in explicit teaching practice evident in the study sample?

3. Are there differences in the explicit teaching of literacy in low SES and high SES primary school classrooms?

The analysis is organised by considering the characteristics in the Explicit Teaching Characteristics Observation set in three stages:

1. Organise the data to provide a detailed description of the explicit teaching practices of each participant, structured to facilitate comparisons with other participants;
2. Transform and consolidate data in order to compare individual participant practices;
3. Transform and consolidate data to compare the high SES and low SES school cohorts

While descriptive statistics are generally used to present the data, the relationships between SES and explicit teaching practices are investigated using *t*-tests and relevant measures for effect size (Cohen's *d*, Hedges' *g*).

Individual participant profiles. The descriptions of individual practice were organised into a set of themes that collectively represented all 13 characteristics. In order to quantitise (Sandelowski, 2003, p. 327) the data, rubrics were devised for each characteristic, detailing three levels of alignment and assigning them a numeric value of 1 to 3: the higher the value, the more fully aligned the participant's practice with the Explicit Teaching Construct (see Appendix H: Characteristic Alignment Framework).

Considerable evidence is available in the literature describing how individual characteristics should be implemented in order to achieve the best student outcomes. Various elements have been identified that should be featured in a characteristic. Examples include feedback at process and SRL levels (Hattie & Timperley, 2007), questioning mix and frequency (Rosenshine, 2012), the presence of key learning intentions and success criteria (Hempenstall & Buckingham, 2016), and embedded metacognitive and SRL processes (Muijs et al. 2014). Rubrics have therefore been constructed to reflect the presence of the elements in

the participant's practice, the frequency of use, and the relative value of each individual element.

The characteristics and considerations devised to guide the initial data transformation and rubrics follow.

Characteristic 1. *Structure: Instruction is organised into sequential phases- Focus, Identifying, Practice, Transfer, and Concluding, with Review and Reporting phases regularly inserted through the lesson.*

Considerations: What phases were observed? In what order did the phases occur and what was the duration of each phase as it occurred? What was the total duration of each phase when all phases of the same type are combined? Were any phase types not evident?

Table 10

Levels of Alignment: Characteristic 1- Structure

Low	Clear phases may not be identifiable. Phase sequencing may be irregular.
Medium	Phases are generally identifiable and in practice, although with some variations in sequence, some omissions and some underdevelopment of individual phases.
High	Five core phases are usually in place and sequential; The Focus phase is well developed; Reporting and Review phases are a regular feature.

Characteristic 2. *Gradual Release of Responsibility: Generally, the teacher role is explanation, modelling and demonstration, and assistance and guidance. A gradual release of responsibility to the student takes place as student fluency develops.*

Considerations: Was there evidence of the operation of the gradual release of responsibility model, with the teacher modelling, guiding and then allowing independent practice?

Table 11

Levels of Alignment: Characteristic 2- Gradual Release of Responsibility

Low	Core components of the GRR model may be missing. Modelling and guided practice may not lead to independent practice. Either modelling or guided practice may be missing from the sequence.
Medium	The GRR model is in evidence although the phases may not be strongly connected and weak teacher modelling may be supplemented by guided practice.
High	The GRR model is clearly evident through a strongly connected 'I do, we do, you do' sequence, commencing with teacher modelling and leading to independent practice.

Characteristic 3. *Context: The teacher provides information about how the content can be useful and relevant in learning and real-world applications, and makes connections to other learning.*

Considerations: Was information provided about purpose, usefulness and context of the knowledge and skills to be taught?

Table 12

Levels of Alignment: Characteristic 3- Context

Low	Little information is provided about utility, application and learning connections.
Medium	Some information is given about utility, real-world applications and connections to other learning, but not all areas are covered.
High	The utility of the learning and relevance in real-world situations is usually clearly explained. Strong connections are made with other learning.

Characteristic 4. Process: *The teacher provides information about what the students will be doing, how they will demonstrate their learning and success criteria. Learning goals/intentions are clearly articulated enabling students to self-monitor.*

Considerations: Were students given information about the learning goals, what they would be doing and how they would demonstrate their learning? How and when was this information shared?

Table 13

Levels of Alignment: Characteristic 4- Process

Low	Little information may be given about learning purposes, and success criteria may not be clear.
Medium	Some information is given about learning objectives and learning procedures, while success criteria may be inferred or described through feedback.
High	Clear and detailed information is provided about the learning intention, the learning procedure and the success criteria.

Characteristic 5. *Monitoring: The teacher monitors student learning in order to give and receive feedback and responds with review and clarification, targeting individuals, small groups and large groups for instruction as necessary.*

Considerations: How did the teacher go about monitoring student understanding? Was there a relationship between monitoring strategies and particular phases? Was there evidence of teacher responses to monitoring?

Table 14

Levels of Alignment: Characteristic 5- Monitoring

Low	Checking for understanding during guided practice is infrequent and desk work supervision is irregular, with low interaction with students.
Medium	The teacher checks for understanding sometimes during guided practice and monitors desk work, providing feedback. Sampling procedures may not ensure that the understanding of all students is monitored, nor be sufficient to adjust instruction during guided practice.
High	The teacher checks for understanding during guided practice and adjusts instruction accordingly. The teacher supervises deskwork, monitoring and providing feedback. The teacher uses a range of monitoring strategies that indicate the level of understanding of all students.

Characteristic 6. *Feedback: Feedback that is instructional and timely is provided to students in practice and transfer phases. In a coaching role, the teacher assists the student to close the gap between performance and learning goals.*

Considerations: How was feedback given in relation to time? How did feedback relate to Hattie and Timperley's (2007) four levels of feedback model? Was there evidence of feedback being directed towards closing the gap between student understanding and the learning intention? What was the general tone of teacher feedback? Was feedback specific?

Table 15

Levels of Alignment: Characteristic 6- Feedback

Low	Feedback is largely at the task level, is not regularly provided for work in progress, and rarely specifies process.
Medium	Timely, affirmative, corrective and instructional feedback is provided for student responses to questions, completed work and work in progress. Feedback primarily addresses the task and process levels and may not regularly specify processes.
High	Timely and affirmative corrective and instructional feedback is provided for student responses to questions, completed work and work in progress. Feedback is regularly given at process and SRL levels, prompts elaboration, and clearly specifies processes.

Characteristic 7. Knowledge: *Teacher talk is a prominent feature of the lesson and includes declaratives, and cognitive and metacognitive processes. Lessons contain propositional, procedural and conditional knowledge.*

Considerations: Which of the three types of knowledge was addressed? How and when did the teacher use declaratives? Were cognitive processes and metacognitive processes evident in learning that addressed procedural knowledge? Were teacher declaratives used to present a range of information?

Table 16

Levels of Alignment: Characteristic 7- Knowledge

Low	Teacher talk may make little use of declaratives or omit specific types of knowledge, sometimes in favour of propositional knowledge.
Medium	Teacher talk will include some declaratives. Cognition, metacognition and propositional, procedural and conditional knowledge will not always be represented in teacher talk in a balanced way.
High	Teacher talk includes frequent declaratives. It includes cognition and metacognition and will present a balance of propositional, procedural and conditional knowledge.

Characteristic 8. *Metacognition: metacognition and self-regulated learning skills are explicitly taught. Thinking out loud features in discussion.*

Considerations: Was metacognition or thinking aloud a feature of classroom talk? Was there evidence of metacognition being embedded in the learning or being addressed specifically as the object of instruction? Where metacognition was in evidence, in which conversations was it evident: whole class discussion, group discussions and monitoring, feedback conversations with individuals, other? Did students exhibit characteristics of self-regulated learners, specifically employing associated strategies: organising and transforming, self-consequence, self-instruction, self-evaluation, help seeking, keeping records, rehearsing and memorising, goal setting and planning, and reviewing records?

Table 17

Levels of Alignment: Characteristic 8- Metacognition

Low	Metacognition and ‘thinking aloud’ infrequently in evidence.
Medium	Metacognition, SRL strategies and ‘thinking aloud’ sometimes are featured in classroom dialogue and processes.
High	Metacognition is embedded in classroom talk which features regular ‘thinking aloud’. The development of SRL is embedded in classroom talk and in classroom processes.

Characteristic 9. *Questioning: Questions are frequently asked by the teacher and students, and include a mix of high- and low-order questions. The teacher both answers student questions and redirects them to other students to answer.*

Considerations: How frequently and in what lesson phases did questioning occur? What type of questions were asked and in what proportions? Were questions distinguishable as process or high-order compared with product or low-order questions? What roles did students play in questioning, and were their questions directed to their peers? How did the teacher respond to student questions? Were sequences of questions used in a Socratic approach?

Table 18

Levels of Alignment: Characteristic 9- Questioning

Low	Questioning may take place, but questions are generally of a low order.
Medium	The rate of questioning is moderate, generally between one question per 2–4 minutes. There is a mix of questions, but high-order questions are clearly less frequent than low-order questions.
High	Questions are frequently asked during instruction at a greater overall rate than one question per 3 minutes. The mix of questions contains an approximately even number of high- and low-order questions. Socratic questioning involves the use of sequences of questions in a purposeful order.

Characteristic 10. *Student Dialogue: Students engage in well planned and structured dialogue with one another.*

Considerations: Were students given the opportunity to participate in dialogue with their peers and what structures and protocols are put in place to facilitate co-operative student learning?

Table 19

Levels of Alignment: Characteristic 10- Student Dialogue

Low	Students rarely engage in group work or engage in loosely structured group work.
Medium	Students sometimes engage in group work with a clear learning focus and the opportunity to share ideas. Student questions may be redirected to peers.
High	Students regularly engage in dialogue through planned and highly structured group work that emphasises sharing ideas. Student questions may be redirected to peers.

Characteristic 11. *Clarity: The teacher communicates with a clarity that is matched to student understanding, and uses appropriate support materials and demonstrations to increase clarity. Students are able to ask clarifying questions.*

Considerations: What evidence indicated that teacher communications matched students' receptive capacities? What strategies did the teacher employ to ensure clarity in communication? The use of support materials, modelling, a variety of media including video, role play and rephrasing are among strategies that might be observed. What indications were there that students sought clarification or were encouraged to seek clarification?

Table 20

Levels of Alignment: Characteristic 11- Clarity

Low	The teacher generally provides explanations, directions and learning information to assist students to understand what is required of them. Redirection and clarification is often needed. Structures, concept attainment strategies and suitable materials that provide clarity may not be evident.
Medium	The teacher generally gives clear explanations, directions and learning information that enable students to understand what is required of them. Structures and processes, concept attainment strategies, and a variety of materials are sometimes used to provide clarity. Students seek clarification.
High	The teacher gives clear explanations, directions and learning information to enable students to understand what is required of them. Clear structures and processes, strong concept attainment strategies and a variety of materials matched to student levels of understanding are used to provide clarity. Students are confident to seek clarification.

Characteristic 12: *Focus: While individual skills are taught, they are always explicitly related to the development of concepts. The teacher maintains focus on the topic.*

Considerations: Was the relationship between the learning activities and the major concept or concepts being addressed made clear by the teacher? Was the lesson clearly focused on a learning intention that had been shared with students?

Table 21

Levels of Alignment: Characteristic 12- Focus

Low	The lesson focus may shift during the course of the lesson. Learning connections, including relationships with key concepts, may not be evident.
Medium	The lesson is generally focused on the learning intention. Sometimes diversions or discontinuity may be evident. Learning connections are made including the identification of associated concepts.
High	The teacher maintains a strong focus on the learning intention throughout the lesson. Learning connections are strongly established, including the presentation of the focus in the context of key learning concepts.

Characteristic 13. *Curriculum: Learning is presented at a suitable level for the student, based on a sequential curriculum which identifies the necessary order for skill and concept development.*

Considerations: Did the lesson draw upon a logically structured curriculum to provide carefully sequenced learning pitched at the level of student need? Did the lesson build upon prior learning and indicate a pathway to future learning?

Table 22

Levels of Alignment: Characteristic 13: Curriculum

Low	Learning is usually drawn from a sequential curriculum. Student learning needs to compete with other considerations such as required curriculum coverage in the selection of learning outcomes. Knowledge and skills are not always presented in a series of logical steps progressing from simple to more complex. Prerequisite learning and consolidation may not be acknowledged.
Medium	Learning is always drawn from a sequential curriculum, with concepts generally matched to student learning needs, and knowledge and skills presented in a series of logical steps, progressing from simple to more complex.
High	Learning is always drawn from a sequential curriculum, with concepts matched to student learning needs and knowledge, and skills presented in a series of logical steps, progressing from simple to more complex. Prerequisite learning is clearly established. Learning is consolidated before progressing.

Participant descriptions were organised according to this framework. Descriptive statements were illustrated with examples, and often with quotations from the teacher talk.

Quantitative data was recorded for the duration and sequence of learning phases, the proportion (%) of overall lesson time spent in phases involving teacher–class interaction, and the frequency of questions to the class group. Less precise quantitative data was represented by general references such as ‘frequent’ or ‘sometimes’.

The assignment of phases was problematic at times. Phases are defined by transitions and content, as described in Chapter 2. In some instances a phase exhibited content that could be associated with a number of phases. Transitions between phases were not always clear.

Often the content associated with the phases of the GRR model was apparent in the full range of instructional settings, including short instructional reviews and learning sequences spanning several lessons. At times on-balance judgements were made based on a strong consensus from the literature. Lesson phases were graphed and atypical examples were addressed in the participant descriptions.

As a rule of thumb, participant descriptions were drawn from the first observation session, and subsequent observations provided confirmation of typicality. The circumstances dictating the decision to use only one observation for the participant comparisons and the approach to determining typicality have been discussed above (see also Limitations of the Study). At times, observations across the three lessons gave a more complete picture of the full teacher repertoire. Among other benefits, this gave a more accurate view of the place of less regularly occurring characteristics such as student dialogue. Where aberrations occurred (in one case an unscheduled class interruption, and in another the phase structure being more clearly viewed over two related lessons), an observation other than the first served as the major source of description, and the circumstances were noted.

Each participant description was summarised in table form (Appendix I: Summary of Explicit Teaching Characteristics Evident in Participant Practice) with details of individual practice recorded in point form and a level of implementation designated for each characteristic. Bar graphs were used to illustrate phase sequence and duration for each participant (see Figures 2–15).

Participant comparison. A selection of transformed data from the participant descriptions was presented in tables and graphs:

- Participant levels of alignment for individual characteristics were presented in tabular form (Table 35).

- Percentages of lesson time spent by each participant in combined teacher–class interaction phases and independent practice phases were presented in bar graphs (Figures 16 and 17).
- The duration of participant teacher–class interaction phases, Focus, Modelling, Guided Practice, and Review, were compared in tabular form (Table 36).
- Participant questioning rates and mix were compared in tabular form (Table 37).
- The presence of selected critical elements (high impact strategies) of a range of characteristics in participant practice was presented in tabular form (Table 38).
- Participant ranking by aggregated alignment and high-impact strategy scores was tabulated (Table 39).

High and low SES school participants: Comparison. The data presentation for the comparison of individual participant practice was reconfigured for the comparison of the high and low SES school participants groups.

- Scatter plots were used to compare
  - participant school SES decile against high-impact strategy usage (Figure 18);
  - participant school SES decile against alignment scores (*Table 19*);
  - participant school SES decile against questioning rates (Figure 20);
  - participant school SES decile against percentage of lesson time in teacher–student interaction phases (Figure 21).
- A range of data was tabulated to compare the two SES cohorts (Table 40). Means were calculated for
  - characteristic alignment scores;
  - implementation of high-impact strategy scores;
  - question frequency;

- percentage of lesson time in selected phases: combined teacher class interaction, modelling, focus, guided practice and independent practice phases;
- duration of selected phases: combined teacher class interaction, modelling, focus, guided practice and independent practice phases.

Summary

This chapter has provided an explanation of the course of action that was followed in order to answer the research questions of the study. The discussion has explored the notion of this being a mixed method, descriptive and initiatory study. In many instances through this discussion it is clear that this study does not fit entirely comfortably with many of the established schema for data gathering or analytic processes, because of the preoccupation of mixed method research with the use of qualitative processes to understand cause and effect. In this study the prime motivation was to understand 'what is' rather than 'why it is'. Understanding 'what is' provides a basis for establishing and investigating relationships with outcomes and eventually understanding 'what should be'.

In the discussion of the theoretical framework, 'pragmatism' is identified as a relevant and authentic paradigm. Accordingly, attention was given to the selection of participants, the recruitment process, the data collection and the analysis.

Information about the data collection includes details of the instrumentation, including the development of the Explicit Teaching Construct, the observational instrument, and the semi-structured teacher interview.

The approach to data analysis was overviewed briefly. A detailed account of that approach is presented in the next chapter.

Chapter 4: Results

This chapter reports on the results of the data collection, primarily obtained through a category observational tool. Twelve participants were each observed on three occasions teaching literacy lessons, a total of 36 observations. The data represented in the individual profile and the subsequent comparisons of individuals and SES cohorts is drawn from twelve observations, comprising one of the three observations of each participant that best meets the pre-determined requirements. Generally, the first observation provided the data. Not all lessons observed were at the same stage of a learning sequence, so for the sake of the validity of teacher comparison, especially regarding quantitative data, a single comparable lesson was chosen for each participant. The additional observations served to confirm the typicality of teacher practice and student participation. Characteristics of explicit teaching, drawn from the relevant literature, provided the categories and guided the collection of data that was used to describe the explicit teaching strategies employed by the individual teachers. Teachers in high SES and low SES schools were equally represented in the participant group, as were males and females.

A secondary instrument, a semi structured interview, was used to provide contextual data about the lessons and information pertaining to the validity and reliability of the data collection. Other basic information collected contributed to a description of the participant sample.

This chapter is organised to facilitate the study's three research questions:

- How can explicit teaching practices in literacy lessons of primary school teachers be described?
- What are the similarities and differences in explicit teaching practice evident in the study sample?

- Are there differences in the explicit teaching of literacy in low SES and high SES primary school classrooms?

Part 1 describes each participant with reference to the operationally defined set of teacher behaviours that constitutes the Explicit Teaching Characteristics Observation Set. A thematic approach has been taken, with some associated characteristics treated within one theme. For example, Lesson Structure incorporated Characteristic 1 (Structure) and Characteristic 2 (Gradual Release of Responsibility [GRR]). In each case contextual and validity information is presented first and a summary of the salient features concludes the participant description. For convenience the participants from the high SES schools, T1–6, were discussed first. Section 2 reports on the similarities and differences evident in the participant sample, considering the variations in practice within the themes addressed in section 1. Section 3 compares the practices of the high and low SES groups of participants, considering the similarities and differences evident in the two cohorts.

Description of the teaching approach. The analysis is organised by considering the 13 characteristics from the Explicit Instruction Characteristics Observation Set. They are:

1. Structure
2. Gradual release of responsibility (GRR)
3. Context
4. Process
5. Monitoring
6. Feedback
7. Knowledge
8. Metacognition
9. Questioning
10. Student Dialogue

11. Clarity

12. Focus

13. Curriculum.

Three levels of alignment are described for each characteristic to facilitate the comparative component of the analysis.

Section 1: Describing Explicit Teaching Practice

Individual participants' explicit teaching practices: content. The twelve participants, T1–12, are described in order. T1–6 were from the high SES schools; T7–12 from the low SES schools. In each instance the following information is presented:

- contextual information for the lessons observed, derived from the interview;
- validation information derived from the interview concerning typicality of the instruction and students' participation, and any perceptions of observer effect on either the teacher or the students. The information provided is derived from the verified transcript of the interview with the teacher. It reflects the voice of the teacher. Conclusions about typicality and observer effect are the opinions of the teacher.
- a description of teacher practices organised by addressing the explicit teaching characteristics;
- examples of teacher talk in each description, and one or two bar graphs representing phase sequence and duration.

Each participant description was summarised in table form (see Appendix I: Summary of Explicit Teaching Characteristics Evident in Participant Practice) with the following details:

- individual practice recorded in point form for each characteristic;
- the level of alignment allocated for each characteristic, indicating the alignment of participant's practice with the Explicit Teaching Construct. A numeric value of 1 to 3 corresponding to levels 1 to 3 facilitates the quantification of the qualitative data. Level descriptors are presented in a set of rubrics (see Appendix H: Characteristic Alignment Framework);
- quantitative information about the duration, frequency and order of learning phases, presented in column graphs. Learning phases which represent a structural aspect of explicit teaching were identified as a prominent characteristic of the approach, and at times have been represented in the participant description with reference across more than one observation. Explanatory notes have been provided in each instance.

Note that where a teacher is quoted directly, the words have been italicised to enable easy identification.

T1

Curriculum context. This writing lesson followed from lessons in which the first draft of an historical narrative was written directly onto the computer after attention to narrative purpose, structure and paragraphing. This lesson was the first step in the refinement process, focusing on and teaching about adjectives and introducing the concept of 'telling and showing'. Future lessons would continue with application of this learning and further refinement leading to publication.

Typicality.

The teacher felt the lesson was typical, including the flexible approach, but said she might model more and show more examples of 'tell and show' on the whiteboard. She felt she was probably more reflective about each thing done in the lesson with an observer

present, but was satisfied that it was typical. She felt that student behaviour was typical but possibly slightly more settled than usual. They were used to having observers in class.

Description of the teaching approach.

Structure. The basic lesson structure exhibited strong elements of an explicit teaching approach. Observation 1 recorded a lesson of approximately 77 minutes and was the primary source for this description; other observations confirmed its typicality, apart from the absence of an Independent Practice phase, which followed in a subsequent lesson. The phases observed, in chronological order, were Focus, Modelling, Guided Practice, Review, Guided Practice, Review, Reporting, and Conclusion (Figure 2).

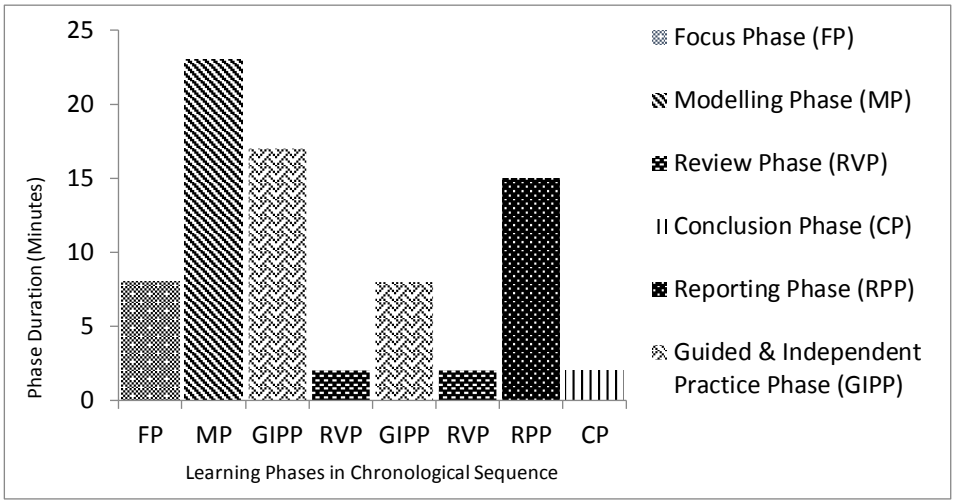

Figure 2. Timing and sequence of learning phases: T1, Observation 1

Information from Observation 2 has been included here; it was also drawn on for the description of structural components. The learning sequence continued in the subsequent lesson with strong Focus and Review phases bridging the lessons and leading to further Modelling and Guided Practice phases, and then Independent Practice.

Gradual release of responsibility (GRR) model. To fully appreciate the participant's deployment of the GRR model, the learning sequence was considered beyond the single lesson. From that perspective a strong alignment was evident.

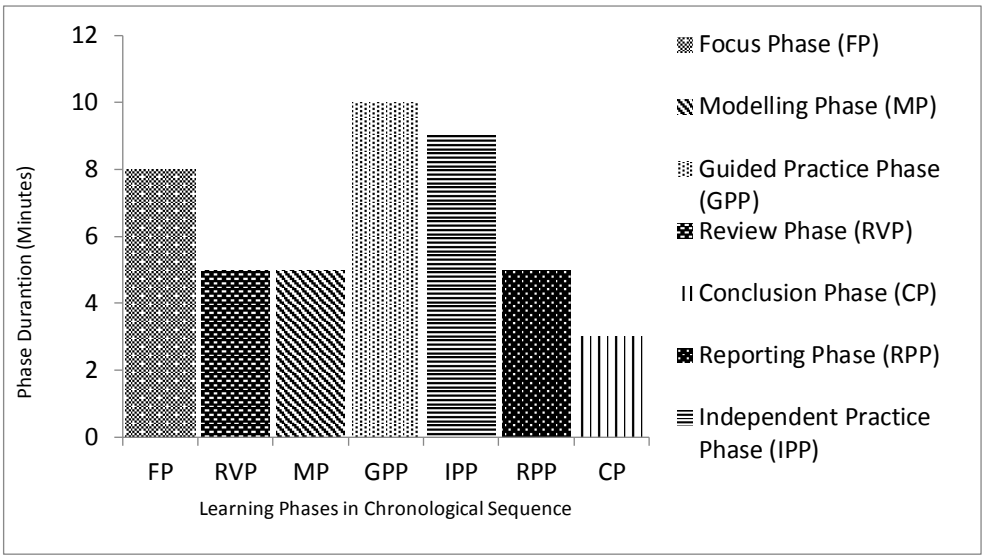

Figure 3. Timing and sequence of learning phases: T1, Observation 2

The sequence of lesson phases when viewed across both observations was consistent with a GRR model. Teacher support was more evident in Observation 1, with student practice being guided. In Observation 2, all students participated in independent practice: some initially received guidance from the teacher before continuing with independent practice. The transfer of learning was represented in independent practice, particularly when applied to the writing task that was the focus of ongoing work.

Context. During the Focus phase the teacher made connections by reviewing previous learning, overviewing the learning sequence currently under way, and placing the current lesson in the context of that sequence. The teacher told the students,

> *This is your first draft.* (A student had queried what the work was that they had been asked to print out and have on their desks ready to start the lesson.) *The work you did in your learning journals is called a planning process, where you do a plan, research your information, historic information, express your thoughts and ideas. That is your first draft on your desks. We wrote it straight into the computer.*

Process. By way of introduction to the learning intentions the teacher began with a question and then provided an explanation of the current purpose:

Who is happy it is their first draft and is going to be working more and improving it as we go?

The process that I would like to look at today is looking at three areas. We will work on them in this draft.

Success criteria were clearly modelled for students at the early stages of guided practice through worked examples.

Monitoring. Monitoring was largely carried out through questioning in teacher–class interactions and through monitoring deskwork in the Practice phases. Of the 13 questions asked of the student group in the Focus and Modelling phases, a number were for checking understanding and engagement. In the Guided Practice phases, the teacher closely monitored desk-work tasks and provided clarification and feedback.

Feedback. Associated with the high level of monitoring throughout the lesson was evidence of timely and corrective feedback:

- Some students were patiently assisted to understand the requirements of the task, through re-reading the instructions and the provision of examples.
- Where correction was required, the teacher provided accurate examples, then prompted students to provide their own accurate examples.
- In a case where elaboration was appropriate, the teacher observed that the work was well worded, prompted the student to refine the work, and once the work was modified, confirmed it with a simple *yes*.

The teacher habitually acknowledged student contributions in class, such as taking a turn to read or offering answers to questions. Typical affirmations included: *good reading;*

excellent; good; yes. Common and succinct, such responses may be seen as a part of the class discourse, expressing civility rather than feedback at the level of self or task.

While much of the feedback was pitched at the task level, there was evidence that feedback was used to highlight process. In response to a student who shared work during the Reporting phase, the teacher said, *(name), you are brilliant! Not a lot of adjectives but the ones chosen work well. Try out several adjectives and choose the ones that work the best. Trust your gut with what you use!*

In addition to prompting feedback to individual students, monitoring also provided feedback to the teacher, prompting reteaching. In the second Review phase preceding the Reporting phase, the teacher told the class that it was interesting that people highlighted describing words, but that they were not actually adjectives. The teacher then proceeded to reteach the definition of adjectives.

Knowledge. Over the course of the lesson, 52 of 77 minutes (68%), involved teacher interaction with the student group, and 25 minutes (29%) was allocated to a combination of guided and independent practice, during which the teacher both interacted with individual students, monitoring and providing feedback, and regularly reviewing task requirements with the group. The teacher frequently used declaratives of the type provided in these examples:

- *Everyone has a different amount of writing on their page. This is your story. Don't spend time looking at anyone else's writing or worrying about what others have done or not done. It is about me showing you how you can improve your writing through these three things.*
- *What is the job of a narrative text type?* (rhetorical question) *To entertain.*
- *We are not using this in your narrative, we are using it to enhance your writing.*

From these examples of declaratives it can be seen that there was a strong focus in the teacher talk on the learning. The teacher consistently used declaratives, particularly to focus

on the purpose and usefulness of the learning, and to emphasise the underlying concept of the narrative writing process.

The lesson was heavily oriented towards procedural knowledge, that is, skills that could be used in elaborating writing, and conditional knowledge, meaning the context in which the skills were applied. Where relevant, propositional knowledge, content/facts, was addressed. For example, information about adjectives, the distinction between adjectives and adverbs, and the distinction between telling and showing.

Metacognition. It may be argued that the focus strategy in this lesson, 'show not tell', was metacognitive in nature. Rather than relating to an audience only the events of a narrative, 'showing' transformed the telling into an experience of those events through the senses of sight, smell, hearing and touch. While most of the work of this lesson centred on the 'show not tell' strategy, the embedded nature of metacognition in the teacher's practice was indicated by several invitations to students to help make thinking visible:

- *Does anyone remember why I thought that would be a good idea?* (The decision to write the first draft straight into the computer.)
- *I want you to show it to me in my head.* (Referring to showing rather than telling the teacher about a hamburger.)

Self-regulated Learning (SRL) strategies were also embedded in the lesson. Students appeared confident in seeking help from the teacher, asking not only clarifying questions but also proactive questions:

- *So, how many drafts will we need to do?*
- *What do you mean by 'show not tell'?*
- *Who are the readers going to be?*

Through this lesson and prior learning the students were taught about a process of refinement. The process of seeking and evaluating alternatives was alluded to in the teacher's counsel to students to try out several adjectives and choose the best one for their writing.

Questioning. A feature of the teacher–student interaction was questioning. The majority of teacher questions, posed throughout the lesson, were asked in the first two learning phases, Focus and Modelling, at an overall rate of one question per 5.5 minutes. Questions served the purpose of reviewing, monitoring and engaging. Questions to students also often supplemented the teacher's declaratives by making important information public: for example, *What is the job of a narrative text?*

In general, although there was variety in the questions asked, they were of neither high nor low order. Few questions required explanations or problem-solving. Why and how questions were limited. Higher-order questions included:

- *We are only using one column. What other words could we have that go in the other columns?* (In context this question asked students to develop a categorisation of 'showing' words);
- *Does everyone remember why I thought that would be a good idea?* (To write the first draft straight into the computer.) This question was not to be taken literally and was not about remembering, but about the reasons for using the computer as opposed to handwriting the draft.

Lower order questions included:

- *What does it say in the box at the top?*
- *What are the words we use when we are describing things?*
- *Who is happy it is their first draft and they are going to be working more and improving it as we go?* (This question was easy for students to answer and invited a show of hands. Intentionally or not, the question served as a device to provide

information about purposes and the processes to the students, engaged student attention by inviting a response and monitored student attitudes to the drafting process.)

Questions were largely one-directional, from teacher to students, with individual students nominated to respond; questions could elicit a single response or multiple responses. The teacher responded to student questions and did not redirect them to the student group.

Of note was the way that students asked questions. Largely, they were clarifying questions. The teacher responded with patience and an encouraging tone. On the one occasion when a question was asked at a time that could have been detrimental to the maintenance of focus, the teacher respectfully deferred answering until later in the lesson.

Student dialogue. There was little evidence of student dialogue in student interactions in this lesson. However, cooperative work was evident. Students exchanged work, highlighting 'showing words' in a peer's writing in the second Guided Practice phase, with what appeared to be practised ease.

Clarity. Teacher clarity can be inferred from two sources of evidence: first, the response of the students to task management (attending to learning tasks) and transitions between phases; and second, the deployment of a range of strategies associated with enhanced clarity (see Chapter 2: Teacher Clarity).

Generally, students responded promptly and accurately to teacher instructions. On-task behaviour was enhanced through student's confident help-seeking skills and the teacher's monitoring practices. Clarification was available for the small number of students who exhibited some uncertainty about what was required of them.

Strategies that promoted concept attainment were a strong feature of teacher practice. In particular, many examples were provided to support understanding. The key strategy presented in this lesson, 'show not tell', was illustrated with examples in a number of ways:

- In the Modelling phase the teacher provided examples followed by students' voluntary examples.
- In the first Guided Practice phase students worked examples from a range of options.
- In the first Review phase the teacher shared examples with students.
- In the second Guided Practice phase students exchanged work and highlighted features of 'showing' text;
- In the Reporting phase students shared their 'tell and show' sentences. The teacher highlighted selected examples.

The structuring and sequencing of the learning enhanced clarity. When they had completed the first draft, students were presented with strategies for refining their writing. The first strategy was relevant to the full text and providing a logical context for using describing words, a complementary strategy.

Clarity was also enhanced by the teacher's ability to connect with students. The choice of a stimulating image, a hamburger, to illustrate the 'show not tell' strategy, immediately engaged students and acted as a strong scaffold for drawing upon the relevant senses that facilitated 'showing'. Similarly, the teacher selected examples of student work that spontaneously evoked a strong demonstrative response.

The discussion of teacher talk about process acknowledged the strong presence of information about learning intentions, context and explanation in the teacher's communications. The teacher used a range of materials to support learning, including the whiteboard, worksheets and graphic organisers

Concept development and focus. The learning material presented over a series of lessons addressed the requirements of the Australian curriculum, specifically *Foundation to Year 10 Australian Curriculum: English* (ACARA, 2018). The lesson was a part of a clear

sequence, strongly connected to prior and future learning. The teacher maintained a strong focus on clearly explained objectives, through task explanation and regular review.

Summary: T1.

Table 23

Summary of the Explicit Teaching Characteristics Evident in Participant Practice/T1

Number	Explicit Teaching Characteristic	Features of Teacher Practice
1.	Structure	Phases followed orthodox sequence; Review and Reporting phases used; Teacher–class interaction (73%); student practice (20%); High-level implementation.
2.	GRR	Clearly implemented; High-level implementation.
3.	Context	Clearly implemented; High-level implementation.
4.	Process	Clearly implemented objectives; Inferred success criteria, confirmed through feedback and class sharing as lesson progressed; High-level implementation.
5.	Monitoring	Strong active monitoring through questioning and desk supervision; Full range of responses; Self-monitored and retaught concept; High-level implementation.
6.	Feedback	Timely and corrective feedback at task and process level. Some SRL level feedback; High-level implementation.
7.	Knowledge	Frequent use of declaratives; Knowledge types evident; Lesson focus on procedural; Medium -level implementation.
8.	Metacognition	Metacognition embedded in discussion; Incidental attention to an SRL skill; Medium-level implementation.
9.	Questioning	Questions to class at a rate of one per 5.5 minutes; Questions clustered in Focus and Modelling phases; Question mix favouring low-order and medium-level informational questions; Medium-level implementation.

10.	Student Dialogue	Student interaction did not include dialogue; Cooperative sharing of work strongly structured; Medium-level implementation.
11.	Clarity	Frequent use of clarity strategies; Restating key information; High-level use of examples; Uses a range of materials; High-level implementation.
12	Focus	Strong learning focus with regular review of skills in context of the core concept; High-level implementation.
13	Curriculum	Australian Curriculum—English; Sequenced development of narrative writing skills; High-level implementation.

T2

Curriculum context. This was one of a series of mini book studies held over the year (12–15 studies), aimed at developing deeper understanding of text in students, with links to reading and writing. The initial book study session was 52 minutes long, followed by a writing workshop where students worked on an extension task.

Typicality. The teacher felt most elements were typical, including the probing questions and structured group discussion. The tasks for students varied quite a lot from lesson to lesson. This lesson featured a refinement of the group discussion approach with an emphasis on one person speaking at a time, to increased contributions from all students by limiting any tendency for a few students to dominate. The teacher did not feel that there was an observer effect: student behaviour was usually pretty good and it might have been a little better than usual on the day—if the average was normally 85% good it would have been 90%—but the teacher doubted there was any impact. Students were used to having a lot of people coming in and out.

Description of the teaching approach.

Structure. The graph (Figure 4) is a representation of the phases in the first observation

session, which was 52 minutes long and the source for the description; other observations confirmed its typicality. Phase content was not always typical of the explicit teaching model developed for this study; however, with the use of a best fit approach to assign the identified phases, the sequence was Focus, Modelling, Guided Practice, Independent Practice, Modelling, Independent Practice, Reporting, Independent Practice, Review, and Conclusion.

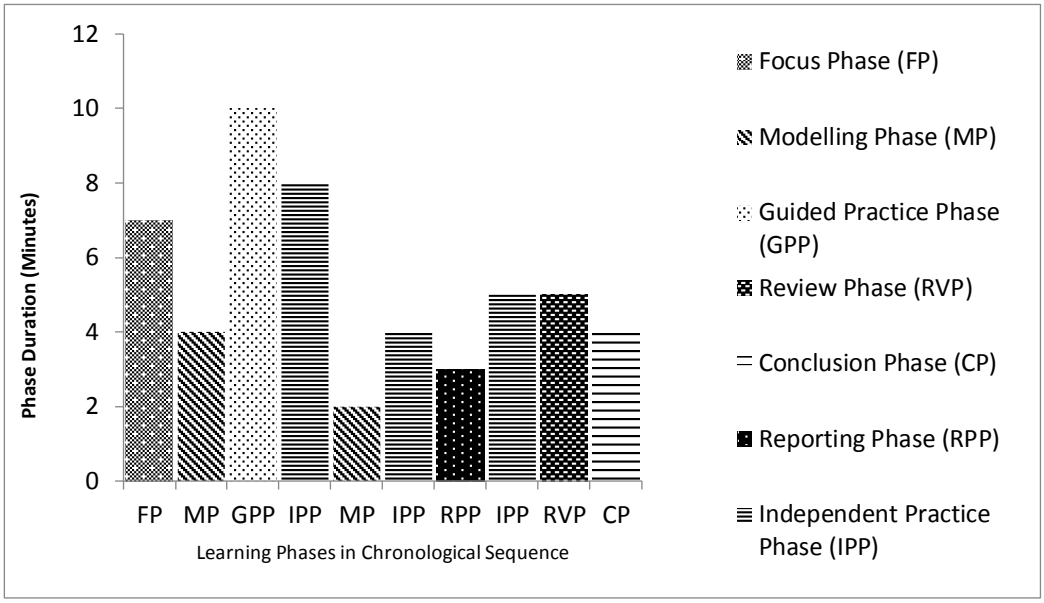

Figure 4. Timing and sequence of learning phases: T2, Observation 1

Gradual release of responsibility (GRR) model. The number of phases recorded and the relatively short duration of the phases were an indication of a very fast paced lesson in which short, timed tasks were interspersed with teacher direction and questioning. Although the overall structure may not clearly indicate it, a conventional GRR model was in operation in a series of short sequences in which the strongest elements were the 'guided' component with teacher and peer scaffolding, followed by independent practice.

Context. The Focus phase was primarily used to establish a common understanding of the concept that would provide the theme for the lesson and reflected the major theme of the novel to be studied. Socratic questioning was a teaching strategy along with teacher affirmations to establish a common understanding. Real life experiences were used to

contextualise the concept. In the Conclusion phase of the lesson the teacher explained how the lesson's theme would be the basis for the next lesson, Writer's Workshop. A hypothetical continuation of the story would provide the setting and key questions were posed.

Process. At the beginning of the first practice phase students were given information about the task: *I have some questions to ask. I want your opinions. I want you to listen to other people's opinions and write them down*. With respect to opinions, the teacher told students in the Focus phase, *It is your opinion. As long as you can back it up with a reason, it is a good answer*.

Very clear instructions were given about the procedures to be followed in the conduct of the student groups. The process was closely monitored and procedures regularly reviewed. Success criteria were established for aspects of the conduct of the student group work.

Monitoring. Apart from the teacher reading and showing the featured book while students were seated on the mat, for the majority of the lesson time students were seated at the tables in groups. The teacher constantly monitored student attention to tasks, answering student questions and providing feedback. A high rate of questioning allowed the teacher to monitor student understanding. Monitoring and feedback were constant.

Feedback. Feedback was timely, that is, it occurred during or shortly after task completion, usually affirmative and addressed task, process and SRL levels:

- A student offered an opinion with two options and described two sources. The teacher responded, *Good thought (name), so you combined the two thoughts. Good work!*
- Affirmative Feedback at the task level was frequent: *Good job, (name).*
- Affirmative feedback was accompanied by prompts for the student to elaborate;
- Corrective Feedback included questions to students about their responses, requests for students to verbalise their thinking, repeating the question, modifying the question, prompts and suggestions.

Feedback was also used to support the structures introduced for student group work. Table points were offered as token rewards for groups that were able to implement an orderly student dialogue process, with no cross talking during the designated speaker's turn. Regular monitoring and feedback were used to regulate student groups**.**

Knowledge. Over the course of the lesson, 31 of 52 minutes (60%) involved interaction with the class, 17 minutes (32%) Independent Practice, and 4 minutes Conclusion (8%). Teacher interaction with the class group reflected a strong Socratic questioning component, regular direction and declaratives of the type provided in these examples:

- *You now have two minutes of silent writing. It* (the opinion you give) *may be influenced by others* (students in the group who shared opinions). *If it is influenced by others, that is fantastic!*
- *Our final question is by far the hardest. It is not actually a direct question about the story. It is about the theme of the story: what theme do you think we were mainly looking at today? Think about how we started the lesson.*
- *In World War Two in England, a lot of parents sent their kids to the country to board, especially if they lived in London which was being bombed. Has anyone seen the first scene of* The Lion, The Witch and The Wardrobe*? They had been sent away to somewhere else outside the war zone*.

Procedural knowledge focused on reading response and the processes of student dialogue. Propositional knowledge was used for the development of context to support student understanding.

Metacognition. The life of the mind featured prominently in the discussion of processes, and 'thinking aloud' was a feature of the teacher–student dialogue. Much of that dialogue had a direct relevance to SRL. For example, with respect to the protocol for group members not to cross-talk when the designated speaker was talking, the teacher asked: *Who*

was finding it hard not to talk? Who finds they really want to say something when the other person is talking? The teacher then related real-life situations where he had to recognise and control the impulse to speak.

Thinking was also raised in the context of the group dialogue, where students were expected to take the opinions of peers into account before finally recording their own opinion: *It is sometimes a hard thing to do to change our minds, but it is a mature thing if someone has a good idea to be able to take it on board.*

The regularity of 'thinking aloud' in this lesson, student confidence in help seeking and the preview of future work indicated that SRL was embedded in teacher practice.

Questioning. This lesson was characterised by a relatively high frequency of questioning with 22 questions addressed to the class group requiring either verbal or written responses, at a rate of one question per 2.4 minutes. The question mix favoured high-order questions. Content based questions were few, with lower-level questions seeking opinions/perceptions rather than recalled information.

Questioning was distributed throughout the lesson with regularity. Questions about the book reading ranged from medium to high inference. Examples of typical questions included:

- *What does it mean to lie?*
- *Is it ever okay to lie? If you think it is, give an example and explain why it is okay.*
- *Someone describe that picture in one word?* (Referring to an illustration in the book that was read to the class.)
- *The guard is worried that the children will find out the truth. How will they feel about Siri's story if they do?* (Siri had told a positive story instead of the dreadful truth.)

The teacher used a number of strategies to encourage wider student participation and engagement:

- *It is your opinion; as long as you can back it up with a reason, it is a good answer*.

- The students were asked, *What is one word to describe Siri? Have an answer in your heads so that if I point to you, you can answer*.

Generally a Socratic approach to questioning was evident in which discussion was framed largely by a series of inter-related questions. Students frequently asked questions, largely seeking clarification to which the teacher responded positively and in an encouraging tone.

Student dialogue. This lesson featured well planned, strongly scaffolded student collaboration in which important elements of dialogue were explicitly developed. The process adopted, provided each group member with the opportunity to share an opinion-based answer, which was followed by group discussion. Students were encouraged to consider peer opinions before writing their own answers. The groups provided the setting for the Guided/Independent Practice phases of the lesson. Engagement and productivity were enhanced by a fast paced lesson with six repeated series of short set tasks.

Clarity. Teacher clarity can be inferred from two sources of evidence. First, the response of the students to task management (attending to learning tasks) and transitions between phases, and second, the deployment of a range of strategies associated with enhanced clarity. Students generally responded promptly and accurately to teacher instructions. On-task behaviour was enhanced through students' confident help-seeking skills and the teacher's monitoring practice. Clarity was enhanced through

- establishing understanding of the key concept through questioning in the Focus phase of the lesson;
- using the featured text which included written and illustrated text;
- supporting understanding of the text with questions as the story progressed;
- providing peer scaffolding;

- supporting student understanding with declaratives, explanation and connection to real world experience.

Concept development and focus. The lesson addressed the requirements of the Australian Curriculum, specifically *Foundation to Year 10 Australian Curriculum: English* (ACARA, 2018).

A strong focus, with the purpose of the lesson's activities unfolding for the students as the lesson progressed, was maintained throughout the lesson. The theme, drawn from the text, 'when is deception all right?' was carefully managed through the three stages of the lesson: the initial theme exploration in terms of 'when telling lies is okay'; the reading and exploration of the text; and the collaborative group work. The theme was to be continued in a writing workshop based on an elaboration of the studied text. The collaborative group work process, a vehicle for student dialogue, saw the refinement of an existing process in a well-planned and tightly managed manner.

Summary: T2.

Table 24

Summary of the Explicit Teaching Characteristics Evident in Participant Practice/T2

Number	Explicit Teaching Characteristic	Features of Teacher Practice
1.	Structure	Phases evident, short and varied; Review and Reporting phases used; Teacher–class interaction (60%); student practice (33%); High-level implementation.
2.	GRR	Evident within small blocks; High-level implementation.
3.	Context	Limited development as lesson progressed; Strong connection to work to follow; Low-level implementation.
4.	Process	Not explicit but self-evident; Inferred success criteria, confirmed through feedback and class sharing as lesson progressed; Low-level implementation.
5.	Monitoring	Strong active monitoring through questioning and desk supervision; Full range of responses; High-level implementation.

6.	Feedback	Timely and corrective feedback at task, process and SRL level; High-level implementation.
7.	Knowledge	Some use of declaratives; Lesson focus on propositional and procedural; Medium-level implementation.
8.	Metacognition	Metacognition embedded in discussion with 'thinking aloud' common; Explicit attention to SRL skill; High-level implementation.
9.	Questioning	Frequent questions to class at a rate of one per 2.4 minutes; Questions interspersed through lesson; Question mix favouring high-order and medium-level informational and opinion questions; High-level implementation.
10.	Student Dialogue	Highly planned and organised student dialogue; Refinement of existing collaborative learning process; High-level implementation.
11.	Clarity	Frequent use of clarity strategies using questioning; Restating key information; Peer scaffolding; Scaffolding for theme development at outset; High-level implementation.
12	Focus	Strong learning focus on a central theme through three connected stages; Strong focus on student dialogue process; High-level implementation.
13	Curriculum	Australian Curriculum—English; Sequenced development of Reading response skills; High-level implementation.

T3

Curriculum context. This writing lesson focused on enriching student writing using 'simile'. A first draft had been completed. This writing exercise was linked to the novel being studied which provided a model of the author's craft. Following lessons would lead to refinement, redrafting and publication.

Typicality. This lesson was typical of the teacher's practice although only Grade 6 students were in the class and the lesson was rushed due to the shortened time of these sessions. The teacher felt that there was no observer effect. Student participation was typical with no observer effect. They were used to having visitors.

Description of the teaching approach.

Structure. The basic lesson structure exhibited strong elements of an explicit teaching

approach. Observation 1 recorded a lesson of approximately 37 minutes duration. This observation was the source for this description. Other observations confirmed its typicality. The phases observed, in chronological order were: Focus, Modelling, Guided Practice, Reporting, Independent Practice, Reporting, and Conclusion (Figure 5).

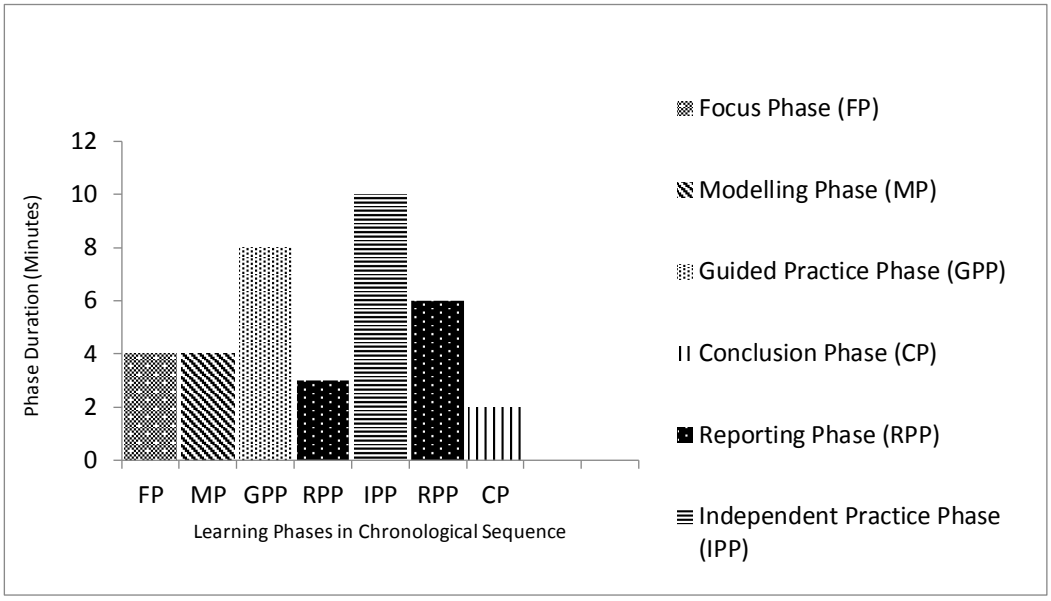

Figure 5. Timing and sequence of learning phases: T3, Observation 1

Gradual release of responsibility (GRR) model. The sequence of phases was consistent with a GRR model. The placement of the first Reporting phase can be understood by taking into account the connections with the previous lesson. This Reporting phase partly served to provide review.

Context. During the Focus phase the teacher explained the learning plan and the connections with the student writing task that was sequenced over a number of lessons. The use of simile and metaphor was reviewed through questioning students:

- *Why do we use them?* (simile and metaphor)
- *How was it used to make it* (writing) *interesting?*

Process. The learning intention, to enrich writing through students editing their first draft, was made clear. The detailed instruction provided prior to the Independent Practice

phase illustrated the clarity provided for students regarding process and product with clear implications for what the success criteria would look like:

> *Read back through your writing and ask yourself, Have I used some of the tools that I think can make it come alive to me? I want you to either change what you have written to make it stronger and more powerful. Add a simile perhaps or one of those powerful words that you have found here or go on with your story if you want to keep going, and I want you to really try and make it vibrant strong writing.*

Monitoring. Monitoring was carried out through questioning, students sharing their work in two Reporting phases and through monitoring deskwork in practice phases. Questions in the Focus phase verified prior learning.

Feedback. Brief affirmative feedback at the task level was provided during questioning and reporting. Feedback voiced agreement, and emphasised key elements of a student response through the use of repetition. For example:

> *So you can actually picture that! Is that what you are saying?*
>
> *It certainly doesn't* (make it sound boring);
>
> *Yes, that would work.*
>
> *Yes, it creates pictures in the mind, doesn't it?*

Feedback was used to clarify responses. The teacher also rephrased answers and used secondary questioning to develop student answers. Feedback was timely, corrective and regularly specified the positive aspects of student understanding. A typical response, in this case to a student's work editing a writing draft was: *That is good writing, to re-read and make the necessary changes! Good writers do that*. In response to reviewing several students' work the teacher stated: *You all like this 'everything goes black' image. Just make sure you don't overdo images that have been used before*.

Knowledge. Over the course of the lesson, 25 of 37 minutes (68%) involved teacher

interaction with the class group, a Conclusion phase that was purely management lasted two minutes, and the remainder was given to Independent Practice, during which the teacher primarily interacted with individual students, monitoring and providing feedback. The teacher frequently used declaratives of the type provided in these examples:

- *It is hard* (to identify what makes an author's text stand out). *I know it's hard, but it is good to do so that you can use it* (in your own writing).
- *He loves to conjure up pictures in your mind … He was a refugee. It was all he has known. If it is all we know, we use it to describe things*.

The declaratives largely provided instruction about process and explanation, focused on learning.

The lesson was largely oriented towards procedural knowledge, that is, skills that could be used in elaborating writing and, where relevant, propositional and conditional knowledge relating to concepts.

Metacognition. Metacognition was regularly featured as an embedded element in the lesson through the 'thinking aloud' strategy:

- *Conjure up pictures in your mind…*
- *What image comes into your mind?*
- *At first I almost thought it was a simile. It's a bit like it, isn't it?*

With clear associations with SRL, the teacher encouraged the editing process, re-reading and making changes to improve the product, and asked students to ask themselves: *Have I used some of the tools that I think can make it come alive to me?*

Questioning. A feature of the teacher student interaction was questioning, with a high frequency of questions directed to the class group in the Focus, Modelling and Reporting phases, and the class and individuals in the practice phases. The question mix favoured high-order questions. Many 'why' questions were asked:

- *Why do we use them?* (similes)
- *Why does Rachel feel that way?*
- *Just read out the one that stands out for you and tell me why.*

Other questions either requiring a response to text or analysis of process included:

- *What are the tools that your favourite author uses?*
- *So what do you like about that?*

Questions were sequenced and organised, in a Socratic approach, for the purpose of inquiry into how authors use imagery to make their work engaging. Students largely asked questions in the practice phases, usually of a technical nature. For example, a student asked about changes that had simplified the text. Without exception the teacher response to student questions was positive and encouraging.

Questions were generally one directional from teacher to student with individual students being nominated to respond, questions either eliciting a single response or multiple responses. The teacher responded to student questions and did not redirect student questions to the student group.

Student dialogue. Student dialogue was not in evidence in the observation.

Clarity. Teacher clarity was inferred from two sources of evidence. First, the response of the students to task management (attending to learning tasks) and the transitions between phases; and second, the deployment of a range of strategies associated which enhanced clarity.

Students responded promptly and accurately to teacher instructions. While technical advice was sought from the teacher, clarification about tasks was rarely needed.

Strategies that promote concept attainment were a strong feature of teacher practice. Numerous examples of the use of imagery in writing were provided through a series of activities:

- Common similes were explored in the Modelling phase.
- Similes were identified in the class novel.
- Students shared imagery and simile from their own edited work.

The logical structure of the lesson and strong connections between reading and writing were features. Clarity was also enhanced by the teacher's selection of text which appeared to be highly engaging for students.

The descriptions of teacher talk and feedback acknowledged the precision in task instructions, the clarity of objectives and the use of repetition and rephrasing.

Focus and curriculum. The lesson addressed the requirements of the Australian Curriculum, specifically *Foundation to Year 10 Australian Curriculum: English* (ACARA, 2018). The teacher maintained a strong focus on the core strategy, the use of imagery to enhance text, throughout the lesson. Strong connections with classwork in reading and writing were established, and strategically placed Reporting phases strengthened the focus.

Summary: T3.

Table 25

Summary of the Explicit Teaching Characteristics Evident in Participant Practice/T3

Number	Explicit Teaching Characteristic	Features of Teacher Practice
1.	Structure	Phases followed orthodox sequence; Reporting phase used; Teacher–class interaction (68%); student practice (27%); High-level implementation.
2.	GRR	Clearly implemented; High-level implementation.
3.	Context	Clearly implemented; High-level implementation.
4.	Process	Clearly implemented objectives;

		Inferred success criteria, confirmed through feedback and class sharing as lesson progressed; Medium-level implementation.
5.	Monitoring	Strong active monitoring through questioning and desk supervision; Full range of responses; High-level implementation.
6.	Feedback	Timely and corrective feedback at task and process level; SRL level feedback; High-level implementation.
7.	Knowledge	Frequent use of declaratives; Knowledge types evident; Lesson focus on procedural; High-level implementation.
8.	Metacognition.	Metacognition embedded in discussion through 'thinking aloud'; Strongly embedded SRL related to Writing; High-level implementation.
9.	Questioning	Questions to class at a rate of one per 2.2 minutes; Questions clustered in Focus, Modelling and Reporting phases; Question mix favouring high-order and medium-order process and reading response questions; High-level implementation.
10.	Student Dialogue	Student interaction did not include dialogue; Low-level implementation.
11.	Clarity	Frequent use of clarity strategies; Rephrasing key information; High-level use of examples; Materials matched to student engagement; High-level implementation.
12	Focus	Strong learning focus with regular review in context of the core concept supported in Reporting phases; High-level implementation.
13	Curriculum	Australian Curriculum—English; Sequenced development of narrative writing and reading response skills; High-level implementation.

T4

Curriculum context. This session was a regular part of the class literacy program, addressing vocabulary development and linked to weekly writing. It included themes such as synonyms and antonyms. It developed and reinforced thinking strategies for understanding

and exploring language. The lesson continued with sharing and peer response in the following session. The featured word would be included in future writing tasks and in related learning challenges.

Typicality. The teacher felt the lesson was typical and that there was no observer effect. Student participation was typical and there was no observer effect on them.

Description of the teaching approach.

Structure. The basic lesson structure exhibited some elements of an explicit teaching approach. Observation 1 recorded a lesson that was approximately 54 minutes long. This observation was the primary source for this description. Other observations confirmed its typicality. While a distinct Modelling phase was not recorded, the long Guided Practice phase actually comprised a series of components in which students were guided through a range of strategies to develop a full word concept, with brief episodes of teacher modelling occurring intermittently. The phases observed, in chronological order, were: Focus, Guided Practice, Independent Practice, Reporting, and Conclusion (Figure 6).

Gradual release of responsibility (GRR) model. In a strict sense a traditional GRR model was not in evidence. The Guided phase of the lesson, while addressing the objective of building a concept of the featured word, 'reprimanded', developed students' procedural knowledge with respect to building propositional knowledge about the word. The Independent Practice phase could reasonably have been expected to involve the independent application of strategies to build an understanding of a similarly unfamiliar word. However, given the success criteria provided for the following lesson's independent practice task, there was evidence that a wide range of learning may have been brought together in that Independent Practice phase suggesting a long term process consistent with GRR.

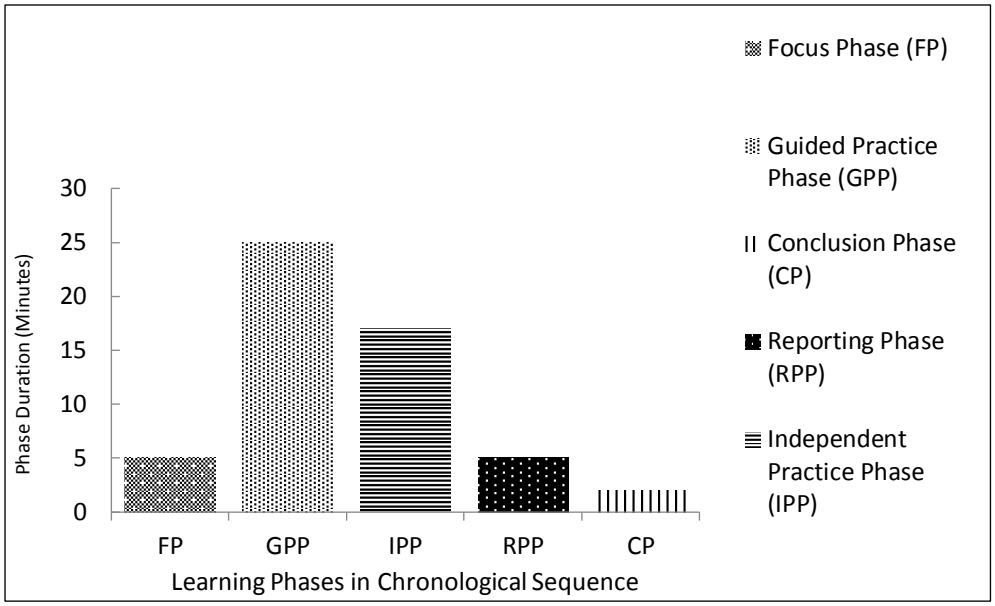

Figure 6. Timing and sequence of learning phases: T4, Observation 1

Relevance. During the Focus phase the teacher provided the context for the close study of a word. The teacher made regular reference to prior learning. For example: *When we were working on narratives earlier this year, we talked about different more descriptive ways of writing 'said'.* (Students identified 'synonyms' as the subject of that prior learning). The teacher made connections to the familiar: the writing of Roald Dahl; hypothetic situations based on familiar school experiences; the upcoming election.

Purpose. Through questioning, dual purposes for word knowledge, comprehending and writing text, were identified. The word was identified and presented in the context of the story that had previously been read to the class. Clear success criteria were provided for the independent writing task:

> *I want you to use the word in a sentence. I want you to think about how to use the word to show what it means, but I don't want the sentence to be a definition of the word. I want you to think about a sentence. Think about a sentence that has two clauses that you are going to put together, but it must also use the word 'reprimanded' and show the meaning.*

Monitoring. Monitoring was largely carried out through questioning in teacher–class interactions and through the monitoring of desk work in the Independent Practice phase. The high frequency of questioning in the Focus and Guided Practice phases provided evidence of student understanding and engagement.

The teacher surveyed prior understanding of the focus word by asking students to choose their place on a continuum from 0–4, where '0' represented having no idea of the word's meaning and '4' represented being confident that they know the meaning of the word.

During the Independent Practice phase the teacher monitored desk work, interacting with individual students by asking questions and providing affirmative and corrective feedback.

Feedback. Feedback was timely and addressed a range of levels, primarily task, process and SRL. A feature of the teacher's talk was a high level of specificity with respect to the learning strategies being used by the student:

- Having received an incorrect answer from the student the teacher asked: *What do you mean by that?* The teacher was able to confirm that the choice of strategy was sound (but not sufficient) and responded: *I like the way you have looked at the word's use to give you some idea of what it might mean*.
- *So you are breaking the word up into parts to see if that gives you a clue*.
- *Good. Good thinking. (Name) is correct with both things*. The teacher then paraphrased the two parts of the answer for the class.

Corrective feedback provided during practice phases included questioning, prompts and suggestions. For example:

- In response to a student's attempt at the writing task the teacher asked: *So does your sentence show the meaning? Do you need to add some more to your sentence?*

- *Do you remember when …* (referring to a previous lesson in which a particular strategy was used to solve a similar problem).

The teacher used a range of responses when providing affirmative feedback. This included:

- brief affirmations: *Yes*; *Definitely*; a laugh (indicating appreciation of visualisation illustrations);
- brief affirmative sentences: *That's a good thought*; *I like the way you are thinking*; *Well spotted*;
- paraphrasing or repeating the correct answer: *So are you suggesting …* (paraphrase)?

Feedback was strongly positive, frequently emphasising correct process, and acknowledging those positives in a student's work when providing corrective feedback. A particular strategy evident in problem-solving was to chart student responses, without giving individual feedback and to collectively identify the correct response with the class.

Knowledge. Over the course of the lesson, 35 of 54 minutes (65%) involved interaction with the class group, two minutes involved concluding instruction and the remaining 17 minutes were independent practice, during which the teacher primarily interacted with individual students, monitoring and providing feedback. The teacher–class interactions were characterised by sequences of questioning and frequent use of declaratives of the type provided in these examples:

- *Well, they become English words but we borrow them from other languages like Greek, Latin, French and German and change them*.
- *You are firm about it. You don't just think they have done the wrong thing, you know they have and so when you are reprimanding them you are quite sharp about it*.

Declaratives were generally used to provide factual information to build concepts and to provide context for learning tasks and processes.

All three types of knowledge were represented in this lesson: propositional knowledge included the word concept; procedural knowledge included word knowledge building strategies; and conditional knowledge involved identifying the suitability of strategy resources to solving specific problems. Both cognitive and metacognitive knowledge was evident throughout the lesson, which featured an emphasis on thinking.

Metacognition. Metacognition was regularly featured as an embedded element through the 'thinking aloud' strategy:

- *I want you to think about whether you have ever heard that word before*.
- *I want you to think about whether you have an idea of the meaning of the word and circle where your understanding i*s (on a scale from 0–4).
- *So you are breaking the word up into parts to see if that gives you a clue*.

Strong connections were made throughout the lesson between the choices of strategies and their use, supporting the development of the procedural and conditional aspects of metacognition:

- *With new words, we need to read the sentence the word appeared in so that we can get an understanding of what it means. If we hear it on its own it doesn't make a lot of sense*.

Questioning. A feature of the teacher–student interaction both at the teacher–class and teacher–individual student levels, was questioning. A high frequency of questions, averaging one question every two minutes, was evident in the Focus and Guided Practice phases. Socratic questioning was evident in frequent sequences of questions directed towards building concepts or identifying processes.

The question mix included a balanced representation of both high-order and lower order questions. High-order questions included the following examples:

- *So does that give us any more idea or more questions?*
- *How are we going to put it into a definition?*
- *Is there a way to check to see if we have selected good synonyms and antonyms?*

Lower-order questions addressed product:

- *Can you think of words that have a prefix?*
- *So what do we call those words?*
- *Who thinks it is '0'?* (their self-rating)

Student dialogue. Student dialogue was not in evidence in the observation.

Clarity. Teacher clarity was inferred from two sources of evidence. First, the response of students to task management (attending to learning tasks) and the transition between phases, and second, the deployment of a range of strategies associated with enhanced clarity.

Students responded promptly and accurately to teacher instructions. Few students required prompting or clarification of tasks.

Strategies that promote concept attainment were a focus of the lesson, the objective of which was to understand the word 'reprimanded'. They included

- the use of examples and non-examples;
- contextual information relating to real world and prior learning;
- the structured application of strategies that identify particular information about a word;
- sequenced questioning in a logical order.

Clarity was enhanced through the recording of ideas and information on the whiteboard and the use of dictionaries and thesauruses.

Focus and Curriculum. The lesson addressed the requirements of the Australian Curriculum, specifically *Foundation to Year 10 Australian Curriculum: English* (ACARA, 2018).

The featured word was used for the development and reinforcement of thinking strategies for understanding and exploring language. The focus was strongly maintained with clear connections between all learning phases.

Summary: T4.

Table 26

Summary of the Explicit Teaching Characteristics Evident in Participant Practice/T4

Number	Explicit Teaching Characteristic	Features of Teacher Practice
1.	Structure	Phases not regularly sequenced; Reporting phase used; Teacher–class interaction (65%); student practice (31%); Medium-level implementation.
2.	GRR	Partly in evidence; Medium-level implementation.
3.	Context	Clearly implemented; High-level implementation.
4.	Process	Clear objectives; Clear success criteria for writing task; Clear purposes with the identification of success criteria and evaluation process based; High-level implementation.
5.	Monitoring	Strong active monitoring through questioning and desk supervision; Full range of responses; High-level implementation.
6.	Feedback	Timely and corrective feedback at task and process level; Highly explicit process acknowledgement; SRL level feedback; High-level implementation.
7.	Knowledge	Frequent use of declaratives; Knowledge types evident; Propositional, procedural and conditional knowledge featured;

		High-level implementation.
8.	Metacognition	Metacognition embedded in discussion through 'thinking aloud'; Procedural metacognitive knowledge addressed. High-level implementation.
9.	Questioning	Questions to class at a rate of one per 2.0 minutes; Questions clustered in Focus, Guided Practice and Reporting phases; Balanced question mix featuring a range from high to low order; High-level implementation.
10.	Student Dialogue	Student interaction did not include dialogue; Low-level implementation.
11.	Clarity	Frequent use of clarity strategies; Frequent and thorough explanation; High-level use of examples and non-examples; Materials matched to student engagement; High-level implementation.
12	Focus	Strong learning focus maintained through a series of strongly connected strategies; High-level implementation.
13	Curriculum	Australian Curriculum – English; Sequenced development of strategies for language exploration; High-level implementation.

T5

Curriculum context. A range of genre was covered over the course of the year. The lesson focused on report writing, specifically dealing with newspaper reports and new writing techniques. Various related skills such as using past tense and speech marks had been reviewed in preparation. This series of lessons would include a second newspaper report and then move on to magazine articles. Although variable, explicit instruction sessions in writing were held twice a week on average.

Typicality. The teacher felt that the lesson was typical and that there was no observer effect. Student participation was typical, with no observer effect. They were used to class visitors.

Description of the teaching approach.

Structure. Elements of an explicit teaching structure were strongly represented in the teacher approach. The reversed order of guided practice and modelling in observation 1 related to the learning of previous lessons. A range of strategies was practised and the task for the independent practice was modelled. Observation 1 recorded a lesson of approximately 60 minutes. This observation was the source for this description. Other observations confirmed its typicality. The phases observed in chronological order were Focus, Guided Practice, Modelling, Independent Practice, Review, and Conclusion (Figure 7).

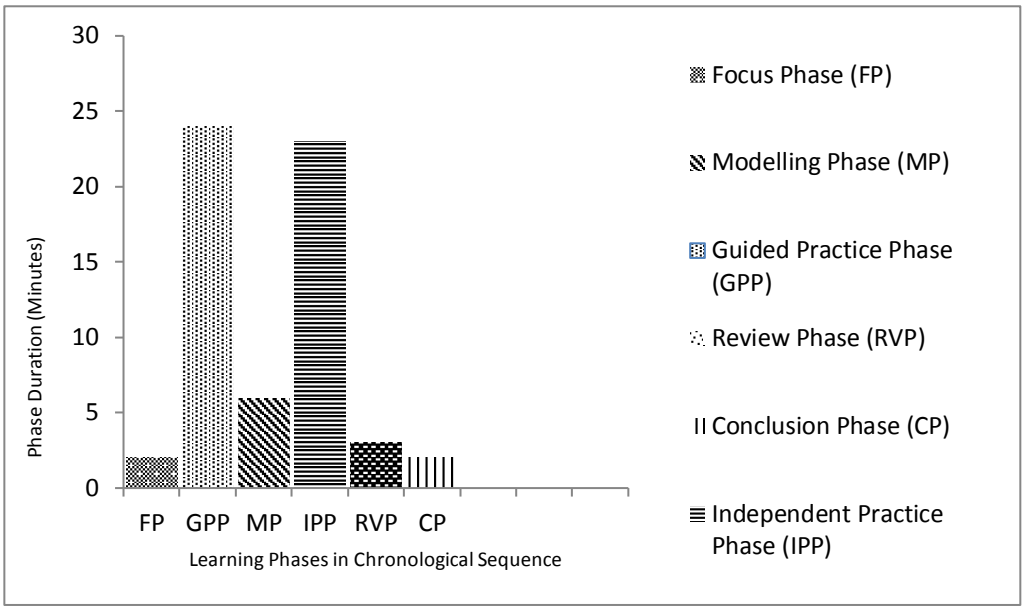

Figure 7. Timing and sequence of learning phases: T5, Observation 1

Gradual release of responsibility (GRR) model. The GRR model was strongly in evidence, not only within this lesson, but also when considered in the context of the learning that preceded the lesson and was planned to follow.

Context. Strong connections were established with the preceding learning, which would be implemented in independent practice in this lesson. The Conclusion phase provided details of the further development of the learning in the next lesson. Details were provided about how prior learning would be applied in the lesson's learning focus, writing a newspaper

report. Current newspaper articles on topics familiar and of interest to students were used to emphasise the real world context.

Process. Learning purposes were clearly explained and detailed learning procedure information was provided from the outset and regularly reviewed. Students were provided with resource information that scaffolded the six step independent practice task. Success criteria were systematically described through the provision and discussion of examples during the course of guided practice.

Success criteria were equated to the purpose of newspapers: to provide information, entertainment and to be appealing to the market.

Monitoring. The teacher displayed high level monitoring practices, including a high frequency of questioning, mainly directed towards prior learning and student understanding. Supervision during desk work featured close attention to students' initial engagement with the task, with questioning, prompting and explaining. The teacher frequently asked students to raise their hands if they needed help.

Feedback. Teacher practice featured timely, affirmative and corrective feedback largely addressing task and process levels. Affirmative feedback often involved restating the correct response and a supplementary comment:

- *Yes it boosts attention. I like that word, boost.*
- *Miss by a mile. That's a good one*.

Corrective feedback often featured prompting:

- *Is that the only verb part? No, that was not the verb. That is right*.

At times general feedback to the class about their work collectively provided additional success criteria information:

- *People were very good with their headings. I liked how you used the writing that sports writers use. An example was 'Devils' hopes up in flames!' That was a good phrase to use and then there was very good follow up*.
- *Publishing skills are growing. You can use columns, import pictures, choose fonts and print size*.

Knowledge. The teacher used a high frequency of declaratives including information about content, instructions and explanation:

- *We have used similes and metaphors in our work before on narratives so we don't have to talk about them. We also did similes with our spelling words last week.*
- *So when I think of football, I think of AFL, but people in England, when they think of football, they think of soccer.*
- *You should be down the front if you can't read it. You know that's the rule*.

Teacher talk featured a balance of propositional, procedural and conditional knowledge, the latter, especially with respect to when to apply the large range of literacy devices reviewed in the lesson.

Metacognition. 'Thinking aloud' sometimes featured in teacher questioning, '*What are you thinking about when you prepare to do your report?*' SRL skills were encouraged through learning routines such as reviewing writing against a hierarchy of descriptors.

Questioning. The teacher asked a very high frequency of questions, averaging one per 1.2 minutes, generally in the Guided Practice and Review phases. The mix was well balanced in terms of high- and low-order questions. A feature was the teacher's frequent use of Socratic questioning, purposefully using a series of questions to lead to key understandings:

- *When do you start thinking about your headline, when you start writing your newspaper article or later on?*

- *Why later on? What might happen while you write your story? What does a headline do?*
- *When you write a narrative, what is the first thing you do? When you write persuasive text?* (What is the first thing you do?) *So how do we start our newspaper report?*

Higher-order questions sought explanations:

- *Why is that a pun?*
- *Why did the headline say, cricket team relishes the taste of duck?*

Many questions monitored prior knowledge and brought relevant technical knowledge (propositional and procedural) to the discussion:

- *What tense are we going to use in a sports report?*
- *Is it a full sentence?*

Student dialogue. Students were organised into pairs in the classroom based on the teacher's judgement of the pair's capacity to engage in effective dialogue and work cooperatively. Frequent opportunities were provided for the pairs to work in cooperation. Tasks were specific. In this lesson pairs worked through a six step task guide together and critically considered each person's work through reference to a display chart with the title, 'Bump It Up', which was a rubric setting out increasingly sophisticated levels of performance.

Clarity. Teacher clarity was inferred from two sources of evidence. First, the response of the students to task management (attending to learning tasks) and the transition between phase, and second, the deployment of a range of strategies associated with enhanced clarity.

Student management of transitions and engagement with tasks, particularly engagement in paired work, was highly efficient as a result of clear direction and scaffolding. A clear

focus was established from the outset of the lesson with learning intentions, learning procedures and the context of the lesson clearly established.

The teacher frequently used questions and declaratives to provide relevant information and supported concept development with many examples. The learning was strongly and logically structured into a series of short steps. Clarity was enhanced through the materials the teacher used through the lesson:

- a scaffolded six step task guide;
- display of examples and other relevant information on an electronic board;
- the regular introduction of engaging real world connections and examples.

***Focus and Curriculum*.** The lesson addressed the requirements of the Australian Curriculum, specifically *Foundation to Year 10 Australian Curriculum: English* (ACARA, 2018).

This genre writing study featuring newspaper reports proceeded through a series of well-connected steps of gradually increasing complexity. The learning sequence featured a strong focus, maintained through a well-structured and planned GRR model, with strong interconnections between the phases. A Review phase reinforced the context of the lesson focus within the overall unit sequence spanning a number of lessons.

Summary: T5.

Table 27

Summary of the Explicit Teaching Characteristics Evident in Participant Practice/T5

Number	Explicit Teaching Characteristic	Features of Teacher Practice
1.	Structure	Generally a conventional phase sequence; Review phase used; Teacher–class interaction (58%); student practice 38%); High-level implementation.
2.	GRR	Clearly implemented. High-level implementation

3.	Context	Implemented as lesson progressed; Strong learning connections; High-level implementation.
4.	Process	Learning Goals information; Clear information about learning process; Medium-level implementation.
5.	Monitoring	Active monitoring through questioning, desk supervision; Full range of responses; High-level implementation.
6.	Feedback	Timely, affirmative and corrective feedback largely at the task level; Frequent use of extension prompts; Medium- level implementation.
7.	Knowledge	High use of declaratives; Cognition and metacognition; Procedural, propositional and conditional knowledge; High-level implementation.
8.	Metacognition	Some ‘thinking aloud’, procedural metacognition; Some SRL routines evident; Medium-level implementation.
9.	Questioning	High frequency questioning at a rate of one per 1.2 minutes; Frequent questioning clustered in Guided Practice; Balanced mix of questions; Strong Socratic approach; High-level implementation.
10.	Student Dialogue	Student dialogue embedded in learning processes through established pairs; High-level implementation.
11.	Clarity	Clarity supported by structures; Frequent and clear directions; Range of materials including visual and graphic organisers; High-level implementation.
12	Focus	Strong learning focus maintained; High-level implementation.
13	Curriculum	Australian Curriculum—English; Sequenced development of strategies for editing writing; High-level implementation.

T6

Curriculum context. The writing lesson followed the regular weekly spelling program, which had been linked to a maths unit on fractions. Writing was focused on the instruction/procedure writing genre, building on ideas previously presented to students by a guest presenter during ride-to-school week. This work would be built on over two or three

more lessons.

Typicality.

The lesson was typical of an approach the teacher was implementing that term across the curriculum, based on the lesson structure promoted in recent professional learning. Other elements were typical of teacher practice, including use of peer/group discussion in pairs and fours. Some days there was an extra adult in the room to assist. The teacher felt that there was not really any observer effect.

Student behaviour was typical and students were good at volunteering answers, however, at times a random selection process was used if students were slow to volunteer. Students were used to having visitors in the school and were very comfortable with someone else in the classroom.

Description of the teaching approach.

Structure. This lesson was strongly representative of a conventional explicit teaching structure. Observation 1 recorded a lesson of approximately 39 minutes and was the source for this description. Other observations confirmed its typicality. The phases observed in chronological order were Focus, Modelling, Guided Practice, Independent Practice, Reporting, and Conclusion (Figure 8).

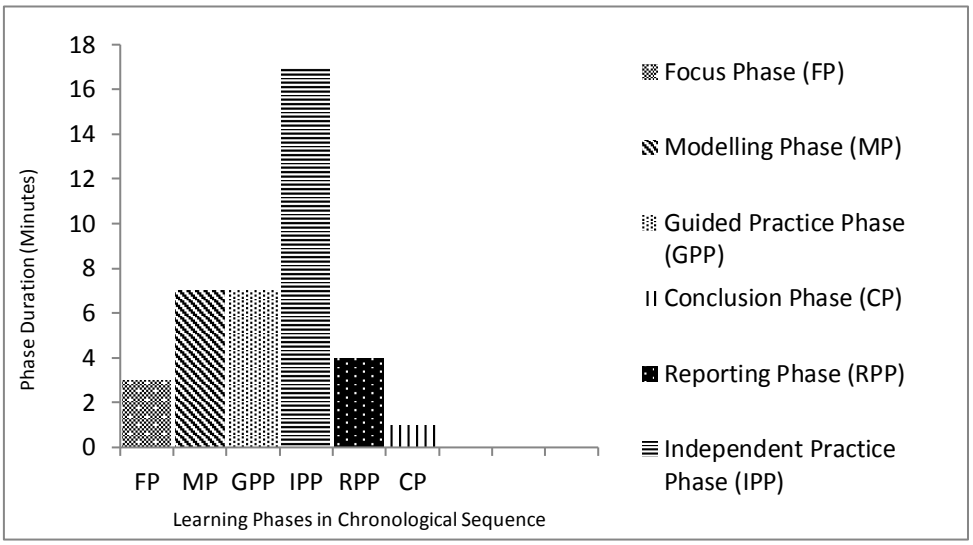

Figure 8. Timing and sequence of learning phases: T6, Observation 1

Gradual release of responsibility (GRR) model.

The sequence of phases was fully aligned with a conventional GRR model. A Reporting phase was used at the end of the lesson.

Context. In the Focus phase a detailed overview was provided for the week. Clear connections were made between the lesson's learning focus, prior learning and the overall unit. The practical context of the instructional writing focus was explained. The focus task was related to a visit to the school by a Road Safety Officer to raise awareness of safe transit between home and school.

Process. The objective, to learn instructional writing, was made clear at the outset. Specific details of the steps comprising the learning procedure were shared and reiterated several times during the course of the lesson. The success criterion was for the completed instructions to be trialled successfully by other students.

Monitoring. The teacher generally monitored prior learning and understanding through questioning during guided instruction. The teacher regularly invited students to raise questions. The teacher adjusted instruction accordingly. For example, during the transition to independent practice, the teacher reconvened guided instruction to explain the map that students were to use in writing their instructions. Deskwork supervision featured close attention to students' initial engagement with the task, using questions and prompts.

Feedback. Short affirmative feedback to student responses included repeating the student answers or short phrases such as, '*that's a good answer*', or '*that's a good one*.' Feedback was largely addressed at the task level. Corrective feedback often included modelling and instruction. Corrective feedback included questions and prompts to assist elaboration:

- *So (name), if you needed a bit more detail, what would you have put in, do you think?*

- *One which would challenge you a bit? Would you choose one that you would think there was no way you could learn?*

Corrective feedback often included modelling and instruction.

Knowledge. The teacher regularly used declaratives to provide content and contextual information, instructions and explanations:

- *This is my commute to school in the morning. These are my instructions if I were to explain to someone …*
- *(Name) is going to read you his instructions. You are going to follow them with your finger on the map and we will see how good they are*.

Teacher talk included propositional, procedural and to a lesser extent, conditional knowledge, all of which was evident in the classroom discussion.

Metacognition. 'Thinking aloud' sometimes featured in classroom dialogue, such as a discussion of the perception of similarities and differences and the use of graphic organisers such as a *See, Think, Wonder Chart* that promotes the vocalisation and documentation of thinking.

Questioning. The teacher asked a moderate rate of questions, averaging one question per three minutes, generally during the Guided Practice phase. A mix of questions was asked, favouring low-order questions, but with some high-order questions included:

- *Why do you think they would design it like that?*
- *How would you design that chart?*
- *Can you give me an example?*
- *What else was happening then?*

Low-order questions were used to monitor prior knowledge and understanding.

Student dialogue. A number of structured approaches provided opportunities for student dialogue. Pairs of students discussed a question and reported the other person's

thoughts, focusing on the listening component of dialogue. Well-structured student groups, in which group members were assigned specific roles, worked at clearly defined tasks.

Clarity. Teacher clarity was inferred from two sources of evidence. First, the response of the students to task management (attending to learning tasks) and the transition between phases, and second, the deployment of a range of strategies associated with enhanced clarity.

Student management of transitions and engagement with tasks was highly efficient. A clear focus on the instruction writing task was established from the outset with strong contextual information and very clear step-by-step learning procedures explained. The lesson was developed in logical well sequenced phases which included a reporting phase prior to conclusion.

The teacher used questioning and declaratives to provide explanations, contextual information and information about learning procedures. The teacher developed concepts through the use of plentiful examples, including shared student work. Clarity was enhanced through the materials that the teacher used through the lesson:

- information recorded on the board;
- information sheets;
- task outlines;
- pro-forma and graphic organisers.

The teacher encouraged student questions and help seeking behaviours by inviting student questions and by responding in a positive and encouraging manner.

Focus and curriculum. The lesson addressed the requirements of the Australian Curriculum, specifically *Foundation to Year 10 Australian Curriculum: English* (ACARA, 2018). The instruction writing study proceeded through a series of well-connected and logically ordered steps. The learning focus was maintained through a well-structured and planned GRR model.

Summary: T6.

Table 28

Summary of the Explicit Teaching Characteristics Evident in Participant Practice/T6

Number	Explicit Teaching Characteristic	Features of Teacher Practice
1.	Structure	Clearly a conventional phase sequence; Reporting phase used; Teacher–class interaction (54%); student practice (44%); High-level implementation.
2.	GRR	Clearly implemented; High-level implementation.
3.	Context	Implemented as lesson progressed; Strong learning connections; High-level implementation.
4.	Process	Learning Goals information; Clear information about learning process; Some success criteria; Medium-level implementation.
5.	Monitoring	Active monitoring through questioning, desk supervision; Full range of responses; High-level implementation.
6.	Feedback	Timely, affirmative and corrective feedback largely at task level; Frequent use of extension prompts; Medium-level implementation.
7.	Knowledge	Use of declaratives; Cognition and metacognition; Procedural, propositional and conditional knowledge; High-level implementation.
8.	Metacognition.	Some ‘thinking aloud’, procedural metacognition; Some use of thinking frameworks; Medium-level implementation.
9.	Questioning	Moderate frequency questioning at a rate of one per three minutes; Questioning clustered in Guided Practice; Mix of questions favouring low order; Medium-level implementation.
10.	Student Dialogue	Student dialogue embedded in learning processes, working in pairs and structured group work; High-level implementation.
11.	Clarity	Clarity supported by structures; Frequent and clear directions; Range of materials including handouts and graphic organisers; High-level implementation.
12	Focus	Strong learning focus maintained; High-level implementation.
13	Curriculum	Australian Curriculum—English; Sequenced development of instruction writing focus; High-level implementation.

T7

Curriculum context. This lesson was a routine vocabulary lesson held twice a week. Words were drawn from the current inquiry based unit on government.

Typicality. The teacher felt that it was a typical lesson and that there was no observer effect on the teacher practice. Students would normally finish their exit cards if the lesson was not shortened for specialist time. Student participation was fairly typical and there was no real observer effect, although the student behaviour may have been at its best due to a visitor being present.

Description of the teaching approach.

Structure. The basic lesson structure exhibited strong elements of an explicit teaching approach. Observation 1 recorded a lesson of approximately 34 minutes. This observation was the source for this description; other observations confirmed its typicality. The phases observed in chronological order were: Focus, Modelling, Guided Practice, Modelling, Guided Practice, Review, Independent/Guided Practice, and Conclusion. The combined Independent and Guided phase is an indication that the teacher worked primarily with part of the class in a guided practice mode, while the balance of the class worked independently (Figure 9).

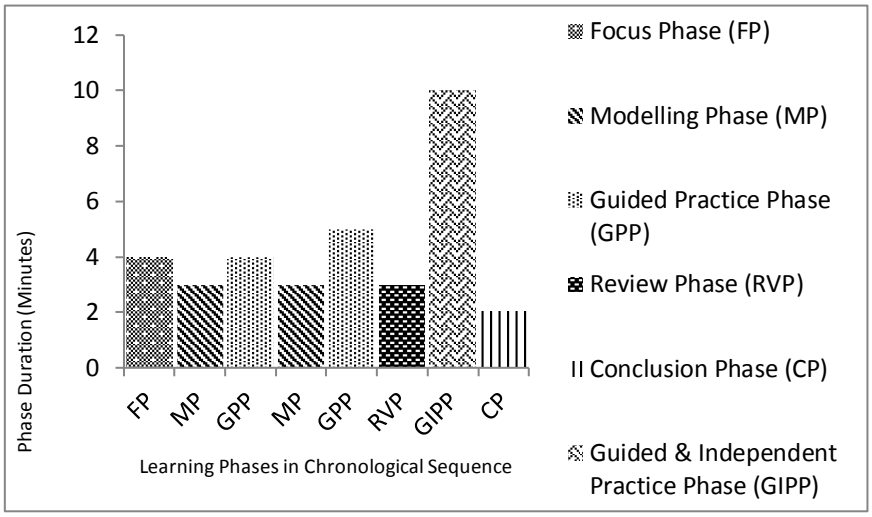

Figure 9. Timing and sequence of learning phases: T7, Observation 1

Gradual release of responsibility (GRR) model. The sequencing of phases was strongly aligned with a conventional GRR model with consecutive sequences of a Modelling phase, followed by a Guided Practice phase and later an Independent Practice phase. A Review phase marked the change in focus in the lesson.

Context. The Focus phase was used to establish the learning intention for the lesson and the use of the learning. Prior learning was reviewed. Connections with other learning were established. The featured words were derived from a study of government.

Process. The teacher stated the purpose as: *To have more words in our vocabularies that we can spell and use in our writing*. A Review phase was used to transition to a new lesson focus. Through student questioning the writing focus was established:

What is our over-arching goal? (To learn about text types.)

What are we looking at, at the moment? (Describing).

Monitoring. While student understanding and prerequisite knowledge was monitored through questioning in the Focus, Modelling and Review phases, students also rated their understanding of the featured words by marking a visual rating system in their vocabulary books. Desk work was monitored during Guided Practice phases.

Feedback. Feedback was timely. Brief affirmative comments included: *That's pretty good*; *Good boy/girl*; *That's right.* At times affirmative feedback would address a feature of the answer: *That's right. That's a simple explanation and it is correct*; *Well done (name). That's worth a 3B!* (redeemable token reward). This was in response to the student being the only class member able to answer a challenging question.

Corrective feedback was provided, largely through desk supervision during Guided Practice phases, and often included prompts, questions, modelling, rephrasing and clarification:

- *Are you right there? What do you think it means?* (Student unable to respond). *You weren't here when we did it last week*. (Teacher models task and the student performs the task.) *Yes, that's right*.
- *(Name), was there any expression in your reading or was it all at the same level?*
- *Now you need to do a drawing in the box. The idea of the drawing is so that you can remember the word, remember the meaning of the word*.

Knowledge. Over the course of the lesson 22 of 34 minutes (65%) involved teacher interaction with the whole class group and the remainder involved practice for the majority of students. In addition, the teacher worked with a reading group for ten minutes of guided practice.

The teacher regularly used declaratives to provide information about the concepts being discussed and learning processes:

- *Federation means the forming of a nation with a central government*.
- *We will learn the meaning of more words from our unit on democracy*.

The lesson was largely oriented towards propositional knowledge, with teacher declaratives and questioning being directed towards establishing factual information.

Metacognition. Metacognition was not a prominent feature of class discussion, however, the basis for SRL was evident in a number of classroom procedures, including students rating their own understanding in their vocabulary books, and completing simple feedback using exit cards at the end of a lesson.

Questioning. The foundation of teacher–student interaction was questioning, with a very high frequency of questions, averaging one per 1.8 minutes, directed to the class group in the Focus, Modelling and Review phases. The mix tended to be dominated by low-level questions designed to make connections with prior knowledge, build concepts through propositional knowledge, and monitor students' understanding of propositional knowledge.

These questions largely required recall:

- *What is our overarching goal?*
- *What type of word do we use when describing?*
- *Who puts the people in the government?*
- *What is the meaning of democracy?* (from prior work).

Questions that required higher cognitive processes than recall, although used less frequently, included:

- *What do you think that means in a simple way?* (Relating to the dictionary definition of 'federation').
- *Why is Australia shown with all the colours on the map?* (A racial and cultural map of Australia).

The teacher responded to student questions promptly and with encouragement. Students confidently sought clarification and assistance.

Student dialogue. Student dialogue was not in evidence in the observation.

Clarity. Teacher clarity was inferred from two sources of evidence. First, the response of the students to task management (attending to learning tasks) and the transition between phases; and second, the deployment of a range of strategies associated with enhanced clarity.

It was clear that established class routines had been well embedded as students efficiently engaged with learning tasks and transitioned between phases. The clear focus established at the commencement of the lesson gave students an accurate expectation of the learning to follow. The organisation of short focused learning phases with well understood purposes in a logical sequence supported clarity. Clarity was enhanced through

- the establishment of clear concepts and procedures;
- the use of plentiful examples;

- the use of the interactive whiteboard to note procedures, record key information and display power points and documents that included tables and images;
- the use of graphic organisers.

***Focus and Curriculum*.** The lesson addressed the requirements of the Australian Curriculum, specifically *Foundation to Year 10 Australian Curriculum: English* (ACARA, 2018). The lesson was presented in two parts. The focus on vocabulary in the first part was tight, with strong learning connections and established routines. A Review phase established a new focus which was sustained for the duration.

Summary: T7.

Table 29

Summary of the Explicit Teaching Characteristics Evident in Participant Practice/T7

Number	Explicit Teaching Characteristic	Features of Teacher Practice
1.	Structure	Phases regularly sequenced; Review phase used; Teacher–class interaction (65%); student practice (29%); High-level implementation.
2.	GRR	Clearly implemented; High-level implementation.
3.	Context	Clearly implemented in Focus phase; High-level implementation.
4.	Process	Clearly implemented Learning Goals; Clear information about learning process; Success criteria inferred; Medium-level implementation.
5.	Monitoring	Strong active monitoring through questioning and desk supervision; Full range of responses; High-level implementation.
6.	Feedback	Timely and corrective feedback largely at task level; Simple affirmative feedback, some specifying skills; Medium-level implementation.
7.	Knowledge	Frequent use of declaratives; Some cognition; Propositional knowledge featured. Some procedural knowledge; Medium-level implementation.

8.	Metacognition	Some ‘thinking aloud’; Some SRL self-monitoring and evaluation structures in place; Medium-level implementation.
9.	Questioning.	Questions to class at a rate of one per 1.8 minutes; Questions clustered in Focus, Modelling and Review phases; Largely featuring low-order recall based questions with some high-order questions; Medium-level implementation.
10.	Student Dialogue	Student interaction did not include dialogue; Low-level implementation.
11.	Clarity	Clarity supported by structures and routines; Frequent and clear directions; High level use of description and definition; Range of materials including visual and graphic organisers; High-level implementation.
12	Focus	Strong learning focus maintained through a two part lesson, with strong connections to other learning; High-level implementation.
13	Curriculum	Australian Curriculum—English; Sequenced development of strategies for language and writing genre exploration; High-level implementation.

T8

Curriculum context. Reading response lessons were held three times a week. A lesson included three phases: a graphic organiser; a focus on a reading strategy; and a letter to the teacher using a sentence starter. This was an introductory lesson, the next lesson involved guided work.

Typicality. The teacher felt the lesson was typical, although there had been a change in the time of day to facilitate observation. Having an observer influenced the teacher to be very focused and thoughtful about all the things she did. The lesson displayed typical student behaviour. It was relatively quiet with a special needs student away for the first observation. Having an observer may also have contributed to the students being relatively quiet.

Description of the teaching approach.

Structure. The basic lesson structure exhibited strong elements of an explicit teaching

approach. Observation 1 recorded a lesson of approximately 40 minutes duration. This observation was the source for this description. Other observations confirmed its typicality. The phases observed in chronological order were: Focus, Modelling, Guided Practice, Independent Practice, Review, Independent Practice, and Conclusion. The transition between the Modelling phase and the Guided Practice phase was not distinct, and was judged to be the point where teacher demonstration was largely replaced by feedback to students who shared their work with the class in response to teacher prompts. Students were seated on the mat for the first three phases (Figure 10).

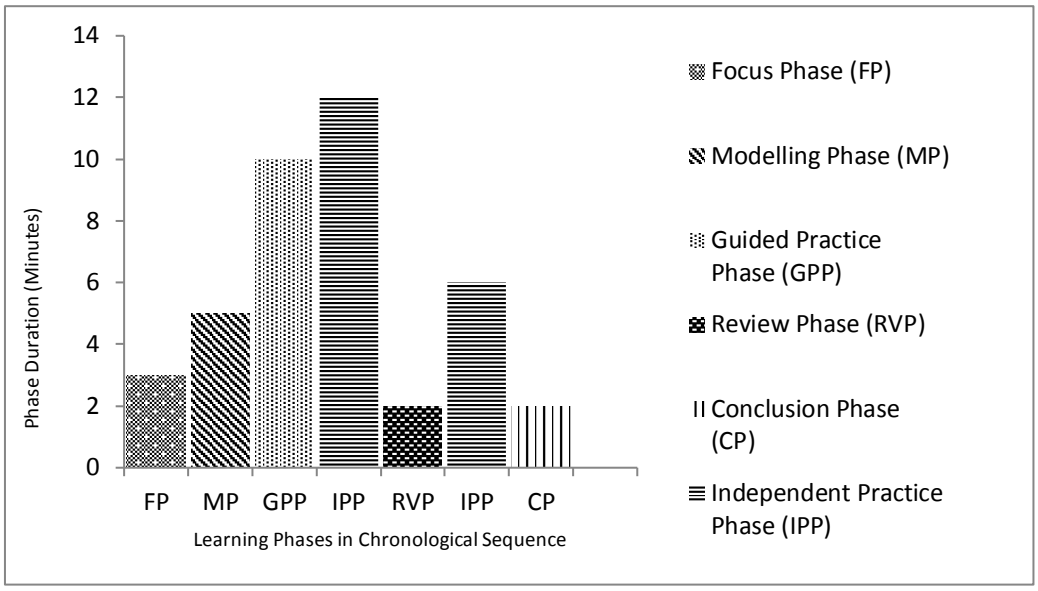

Figure 10. Timing and sequence of learning phases: T8, Observation 1

Gradual release of responsibility (GRR) model. This lesson provided a clear example of the GRR model with phases in clear sequence; a Review phase interrupted the Independent Practice phase in order to revisit the final worksheet task.

Context. During the Focus phase the teacher provided information about the use of the learning, the learning objective and the procedures that students would need to follow.

Process. The overall purposes of reading response were explained first, followed by details of the lesson's focus:

- *We are going to make connections for our reading strategy. Text to self, text to text, and text to world.*
- *I am going to read you the book* Lone Pine *and you can take notes about what connects to you.*

The teacher then provided examples of each of the three text associations. Some information about success criteria was given:

- *The more you get, the better you will do.*
- *You need to have evidence* (a reference) *from the book, where in the story or a page number for the connections you write down.*

A further learning objective was '*I want you to tell me how making these connections helps you understand the story.*'

Monitoring. Student understanding was monitored through questioning in the Modelling and Guided Practice phases and through desk work supervision in the Independent Practice phase.

Feedback. Feedback was timely, given immediately after students responded and as students worked in practice phases. Brief affirmative feedback was given when students responded to questions, for example, '*yep*', often followed by questions to prompt elaboration:

- *Well done! So maybe that might be a symbol?*
- *Yep. Was that a connection to self?*
- *Okay. What would that be a connection to*?

Much of the corrective feedback was directed to clarifying task requirements and prompting students to extend and elaborate their responses through the use of questioning: *So (name) has made a connection. (Name), what is that a connection to and what is your*

connection at home? You need to describe that. (This was in the Guided Practice phase, while the class was on the mat writing their responses during the book reading.)

When clarification was required the teacher restated, paraphrased and sometimes demonstrated. Generally, affirmative feedback did not include a description of the processes the student had used.

Knowledge. Over the course of the lesson, 20 of 40 minutes (50%) involved teacher interaction with the whole class group and in the remainder of the time students were involved in independent practice. During whole class interactions the teacher used declaratives to provide information about learning processes and contextual information about the featured text. For example, the teacher described memorial tree plantings in Hobart. With respect to the writing task she told students:

> *I have a little bit down the bottom (of the worksheet). I want you to tell me how these connections help you understand the story.*

The lesson was largely oriented towards procedural knowledge, with incidental propositional knowledge provided to assist with the establishment of context.

Metacognition. The focus skill of this lesson, making connections between text and personal knowledge or experience, was fundamentally procedural metacognition. 'Thinking aloud' was not generally evident as a feature of classroom dialogue beyond the strong modelling of the featured skill by the teacher and through student responses.

Questioning. A moderate number of questions were asked in the Modelling and Guided Practice phases. The questions were clearly directed towards reinforcing the modelling of the featured skill and monitoring student understanding of the process of 'making connections'. Consistent with these purposes, questions were generally of a low order:

- *Has anyone made any connections?* (asking for a volunteer to share).
- *Okay, what was the connection to?*

- *Has anyone here planted a tree?*
- *Did anyone make connections with ANZAC Day*?

Student dialogue. Student dialogue was not in evidence in the observation.

Clarity. Teacher clarity was inferred from two sources of evidence. First, the response of the students to task management (attending to learning tasks) and the transition between phases, and second, the deployment of a range of strategies associated with enhanced clarity.

The clear focus established at the commencement of the lesson, followed directly by a logical and structured sequence which included modelling and guided practice gave students a clear expectation of their roles, resulting in efficient transition and engagement with tasks.

Clarity was enhanced through

- the use of text pitched at a suitable level, which included clear illustrations;
- the establishment of strong connections with the text;
- the use of plentiful examples;
- the use of a graphic organiser.

Focus and Curriculum. The lesson addressed the requirements of the Australian Curriculum, specifically *Foundation to Year 10 Australian Curriculum: English* (ACARA, 2018). The lesson was clearly focused on the reading strategy of 'making connections' to enhance meaning. A tight focus was maintained through the use of one text and an orthodox sequence of learning phases, following a GRR model, with one Review phase splitting an extended Independent Practice phase contributed to focus.

Summary: T8.

Table 30

Summary of the Explicit Teaching Characteristics Evident in Participant Practice/T8

Number	Explicit Teaching Characteristic	Features of Teacher Practice
1.	Structure	Phases regularly sequenced; Review phase used; Teacher–class interaction (50%); student practice (45%); High-level implementation.
2.	GRR	Clearly evident; High-level implementation.
3.	Context	Clearly implemented in Focus phase; High-level implementation.
4.	Process	Clearly implemented Learning Goals; Clear information about learning process; Some success criteria; Medium-level implementation.
5.	Monitoring	Strong active monitoring through questioning and desk supervision; Full range of responses; High-level implementation.
6.	Feedback	Timely and corrective feedback largely at task level; Simple affirmative feedback; Low-level implementation.
7.	Knowledge	Use of declaratives; Some cognition and metacognition; Procedural knowledge featured. Some propositional and conditional knowledge; Medium-level implementation
8.	Metacognition	Procedural metacognition focus; Medium-level implementation.
9.	Questioning	Questions to class at a rate of one per 3.6 minutes; Questions clustered in Modelling and Guided Practice phases; Largely featuring low-order questions; Low-level implementation.
10.	Student Dialogue	Student interaction did not include dialogue; Low-level implementation.
11.	Clarity	Clarity supported by structures; Frequent and clear directions; Range of materials including visual and graphic organiser; High-level implementation.
12.	Focus	Strong learning focus maintained; High-level implementation.
13.	Curriculum	Australian Curriculum—English; Sequenced development of strategies for Reading response; High-level implementation.

T9

Curriculum context. This session was a regular part of the class literacy program, addressing the editing process, linked to regular weekly writing sessions and to a unit on the Olympic Games. It was part of the process leading to the publication of a writing task.

Typicality. The teacher reported that the lesson was typical. The teacher tried to take an open approach in teaching. With different tasks the teacher would spend more time monitoring and making sure that students were engaging with the task. There was no observer effect.

Student participation was more or less typical. They might not always be so quiet, especially when the whole class was in attendance (five were absent from school on the day of the first observation). Their participation was typical and there was no observer effect. They were comfortable with a visitor.

Description of the teaching approach.

Structure. The basic lesson structure exhibited strong elements of an explicit teaching approach. Observation 2 recorded a lesson of approximately 60 minutes. This observation was the source for this description. Other observations confirmed its typicality. In this case, Observation 2 was chosen rather than the customary Observation 1, due to the inclusion of a single extended phase, unusually sequenced (most of the class had independent practice while the teacher heard individual students read). This tended to distort the representation of explicit teaching behaviours that were consistent when viewed across all three observations, with the exception of the Guided phase, which was limited in Observation 1 (Figure 11).

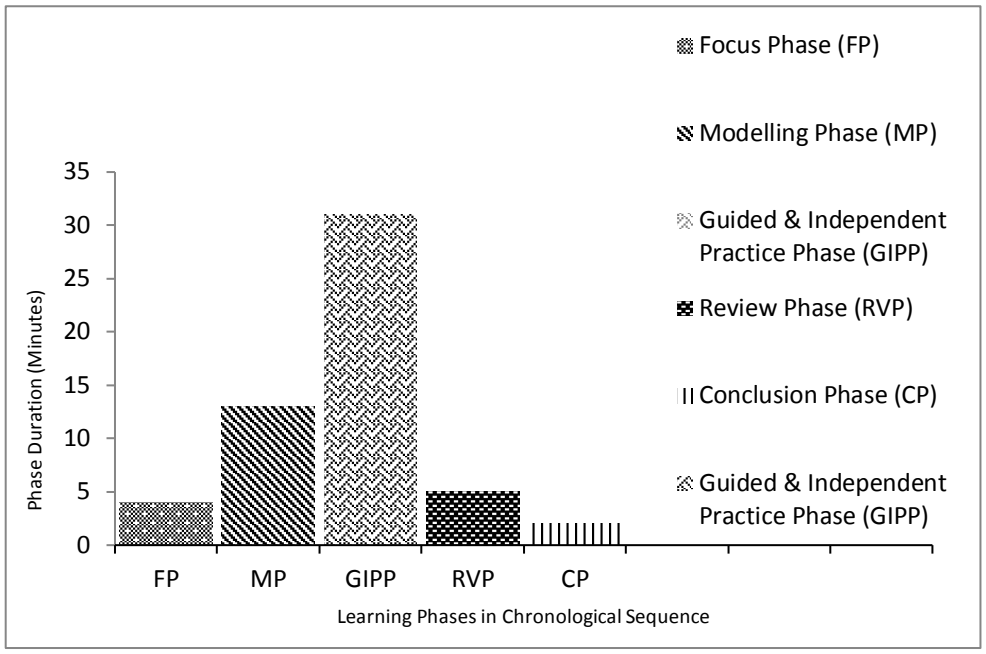

Figure 11. Timing and sequence of learning phases: T9, Observation 1

The phases observed in chronological order were: Focus, Modelling, Guided Practice, Independent Practice, Reporting, Guided Practice, Review, and Conclusion (Figure 12).

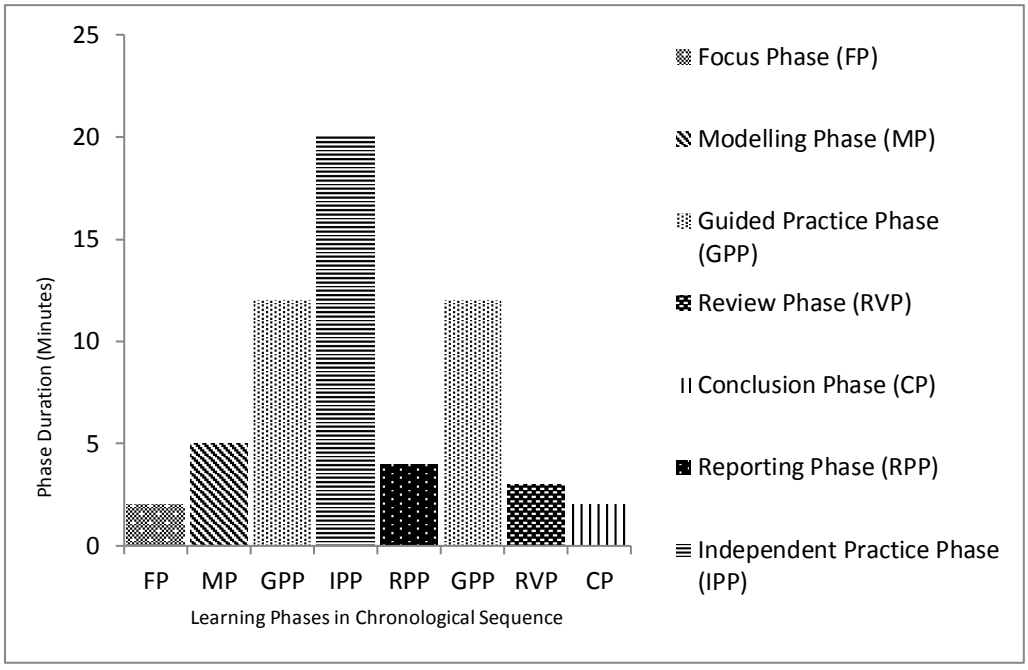

*Figure 12. Ti*ming and sequence of learning phases: T9, Observation 2

Gradual release of responsibility (GRR) model. The sequence of phases was strongly aligned with a conventional GRR model. The teacher used a Reporting phase and a Review phase. The Reporting phase, located closer to the centre of a long lesson, partly played the same role as a Review phase in serving to maintain the focus of the lesson.

Context. A brief focus phase clearly presented learning intentions, the learning process, learning connections and the utility of the learning focus. Teacher talk consistently presented the learning focus in the context of the larger learning area, writing.

Process. The teacher explained: *The biggest problem with this* (editing) *is that you guys can recognise when something is wrong, where it doesn't sound right, but sometimes you can't find the way to fix it. That is what we are going to have a look at today*. The teacher then modelled the editing of a sentence on the electronic whiteboard as an example.

Monitoring. The teacher used a range of strategies to monitor student understanding. Questioning was used for checking student understanding during Guided Practice phases and desk work supervision. However, examples of student work were featured throughout the Guided Practice phases, and reworked by the student with input from the class group, guided by the teacher. Student work was featured in the Reporting phase. Student task completion was monitored through signals such as 'hands on head' and asking for a show of hands for completion of a list of tasks.

Feedback. The teacher used strong affirmative, corrective and instructional feedback often directed to the process and SRL levels. A high level of detail was often provided to indicate correct process. For example:

- In reviewing a student's work in a Guided Practice phase, the teacher said: *I was really pleased to see that (name) really took his/her time. (Name) was trying things, rubbing things out, putting something in, stopping and reading it. I'm happy with the changes made…*

- *(Name) showed another place where it needed to be changed to 'were' and corrected it. Very good*.
- *I love that you didn't have a capital to start with but that you do here. That's good*.

Corrective feedback often provided prompts for modifying or extending an answer or explanation:

- 'Because it was in the *past*?' student answers. *No because both were in the past*.
- 'It sounds better,' student answers. *It does, but there is a reason it sounds better*.
- 'It makes more sense,' student answers. *Yes, why? Think right now where you would use the word 'were' instead of 'was'*.

The teacher often used prompts to encourage elaboration of answers; for example, *You might need to add something to that sentence*. In particular, feedback to individuals used in the Guided Practice phase was instructive for the whole group.

Knowledge. There was a strong representation of declaratives in the teacher talk. A high level of explanatory, descriptive, contextual and procedural information was consistently provided by the teacher. Examples included:

- *See if you can hear that it doesn't sound quite right, then put your hand up if you can fix the sentence with a simple change*.
- *We are asking, is the word that we are saying, the word we have written? We have asked, is there a better word to describe what we want to say? We have looked at the order of words and we have looked at words we could add in*.

The lesson primarily featured procedural knowledge, but acknowledged relevant propositional and conditional knowledge.

Metacognition. 'Thinking aloud' was a prominent feature of teacher talk. The 'thinking aloud' modelled represented an embedded approach to SRL. For example, the teacher discussed editing strategies:

- *Straight away, we can hear that it doesn't sound right.*
- *This can sometimes happen. We know the facts, but when we put it together in a sentence we distort our facts. The way we write it changes what we wanted to say. That is why we have to carefully check what we have written.*
- *Think right now, where you would use the word 'were' not 'was'.*
- *That talks to me. It tells me ….*

The focus of the lesson, the skill of editing written work, was strongly associated with SRL. The teacher provided strong evidence that 'thinking aloud' or making thinking visible was an embedded practice that was consistently in use in the classroom.

Questioning. Questioning played an important role in Guided Practice phases, and featured in moderate numbers, averaging a rate of one question per four minutes. Questioning represented a mixture of high and low-order questions, sometimes seeking explanation, information, or encouraging engagement with rhetorical questions prompting student contemplation and sometimes monitoring understanding. Examples included questions seeking explanation:

- *Why did you do that?* (an editing choice).
- *Can anyone explain why we use 'were' not 'was'?*
- *Why does it need a comma?*

Students were confident to ask the teacher questions and did so quite informally but in an orderly manner. The teacher responded in an encouraging manner.

Student dialogue. This lesson featured well planned and well-structured student dialogue, as students worked in pairs in an Independent Practice phase to collaborate in applying the editing process, which had first been carefully modelled by the teacher. The teacher assisted the class group to complete several worked samples in a Guided Practice phase. Pairs were supplied with a template and clear instructions. Completed work was to be

ready for sharing in the following Reporting phase. This phase featured strong structure and clear expectations.

Clarity. Teacher clarity was inferred from two sources of evidence. First, the response of the students to task management (attending to learning tasks) and the transition between phase, and second, the deployment of a range of strategies associated with enhanced clarity.

Student management of transitions and engagement with tasks was efficient, particularly their engagement in co-operative paired work. This was the result of clear direction and strong scaffolding.

A clear focus was established from the outset with learning intentions, learning procedures and the utility of the learning explained. The focus skill, editing writing, was systematically and logically developed through the lesson with clear learning connections.

Concept development was strongly addressed through the presentation of examples, non-examples and numerous worked examples.

While questioning was used moderately, teacher use of declaratives was particularly strong in the provision of explanation, contextual information and information about learning procedures. The use of a Reporting phase and a Review phase in effect provided review at two stages through the lesson.

Clarity was enhanced through the materials that the teacher used during the lesson. The electronic whiteboard was used for display of key information and worked examples with a capacity to record and display the sequence of edits for students. A graphic organiser was provided for group work.

Focus and Curriculum. The lesson addressed the requirements of the Australian Curriculum, specifically *Foundation to Year 10 Australian Curriculum: English* (ACARA, 2018).

The focus, editing writing, was developed through a well-structured GRR model, with two Review phases and strong connections to other class learning, focused on the Olympic Games. Phase changes and regrouping, involving whole class, individual and paired work, served to maintain student engagement through repeated practice directed towards deep learning.

Summary: T9.

Table 31

Summary of the Explicit Teaching Characteristics Evident in Participant Practice/T9

Number	Explicit Teaching Characteristic	Features of Teacher Practice
1.	Structure	Phases regularly sequenced; Review and Reporting phase used; Teacher–class interaction (63%); student practice (35%); High-level implementation.
2.	GRR	Clearly implemented; High-level implementation
3.	Context	Clearly implemented in Focus phase; Revisited through the lesson; High-level implementation.
4.	Process	Clearly implemented Learning Goals; Clear information about learning process; Some success criteria through feedback and modelling; High-level implementation.
5.	Monitoring	Strong active monitoring through questioning, desk supervision and other structures; Full range of responses; High-level implementation.
6.	Feedback	Timely, affirmative, corrective and constructive feedback largely at process and SRL levels; Highly explicit acknowledgement of process; Strong use of extension prompts; High-level implementation.
7.	Knowledge	Strong use of declaratives; Cognition and metacognition; Procedural knowledge featured. Some propositional and conditional knowledge; High-level implementation.
8.	Metacognition	Strong ‘think aloud’ and procedural metacognition focus embedded; SRL skills addressed; High-level implementation.

9.	Questioning	Questions to class at a rate of one per 4 minutes; Moderate questioning clustered in Guided Practice phase; A mix of high-order and low-order questions; Medium-level implementation.
10.	Student Dialogue	Structured work in pairs; High-level implementation.
11.	Clarity	Clarity supported by structures; Frequent and clear directions; Range of materials including visual and graphic organisers; High-level implementation.
12	Focus	Strong learning focus maintained; High-level implementation.
13	Curriculum	Australian Curriculum—English; Sequenced development of strategies for editing writing; High-level implementation.

T10

Curriculum context. This lesson was the beginning of a poetry focus. There was a continuation of a focus on figurative language, metaphor having been introduced in a previous lesson. The word study session was a daily event. Themes were to be developed in following lessons.

Typicality. The teacher felt that the lesson typified teacher practice and that there was no observer effect. Student participation was typical. An initial reluctance to speak up in the first session may have been associated with observer presence. It was not noticeable in the subsequent observations.

Description of the teaching approach.

Structure. The basic lesson structure exhibited strong elements of an explicit teaching approach. Observation 1 recorded a lesson of approximately 56 minutes, and was the source for this description. Other observations confirmed its typicality. Sequencing was orthodox. The first learning focus took approximately 24 minutes. A Review phase introduced a second learning focus that continued for the next 31 minutes. Both learning focuses built on prior

learning, as reflected in the relatively short Modelling phases. Both Review and Reporting phases were used. The phases observed, in chronological order, were: Focus, Modelling, Guided Practice, Review, Modelling, Guided Practice, Independent Practice, Reporting, and Conclusion (Figure 13).

Gradual release of responsibility (GRR) model. The sequence of phases follows a conventional GRR model. It is important to note that learning was strongly connected across lessons, each focus building on prior learning. This was evident across the three observations.

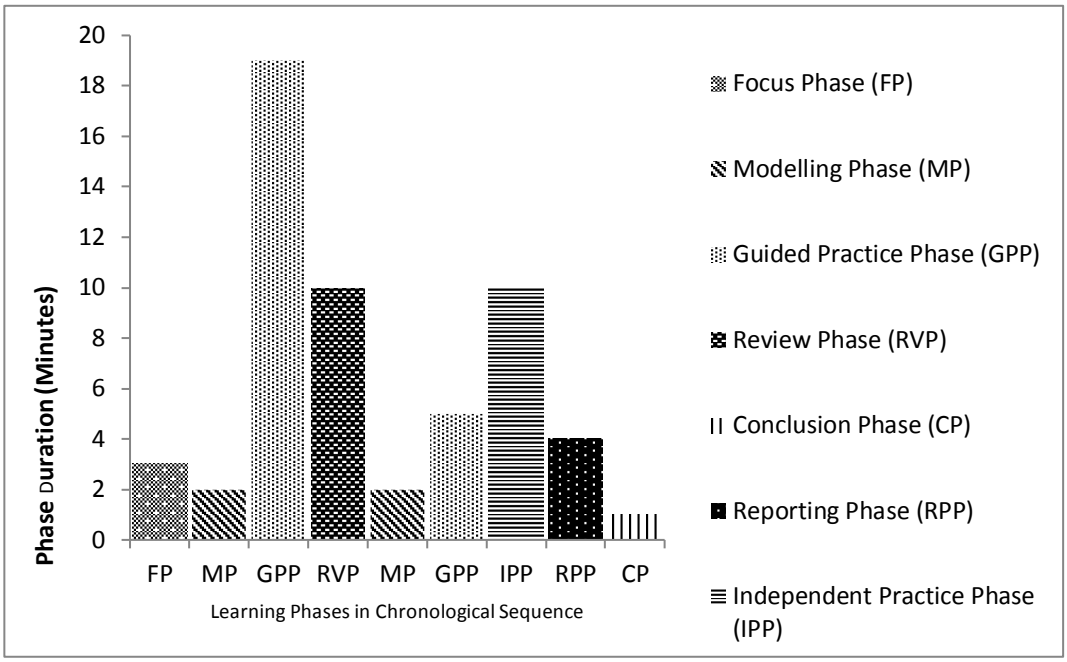

Figure 13. Timing and sequence of learning phases: T10, Observation 1

Context. Strong connections were made with prior learning, student interests, and real-world student experience. The usefulness of each learning focus was discussed:

- *If I send you to research information and I don't want you to copy it what do you do?* (Student response was, 'Make a summary.')

Process. Learning goals were clearly stated in the Focus phase: *… to use metaphor effectively*. The teacher discussed the meaning of 'effective' with the class and success criteria were clearly specified:

- *Now yesterday one of our success criteria for knowing about metaphors was that you would know it well enough to explain it to a friend*.
- *When you have used five metaphors in a poem it will help me see you understand*.

Monitoring. The teacher exhibited high level monitoring practices implementing a range of strategies. A high frequency of questioning was evident, with many questions directed towards checking student understanding and prior knowledge at the beginning of a learning focus and during guided practice. The teacher adjusted instruction accordingly. Students shared their work during the Guided Practice and Reporting phases.

Strategies that included a strong monitoring component included student use of a rating scale to indicate their confidence in applying reading strategies and the explanation of a concept to a friend. Supervision during desk work featured probing questions and extensive prompting for elaboration. At the commencement of independent practice the teacher instructed: *If you are stuck, sit here and I will help you get started*.

Feedback. Teacher practice featured high level feedback that was timely, affirmative, corrective and highly instructive. Corrective feedback featured strong prompting for task elaboration:

- *Does that make sense? You are on the right track but there must be something the same about the person and the thing* (in the metaphor).
- (In response to a student selecting a key word): *Even before that. Now if we needed just one key word, what would it be? You are still one step ahead. Yes!* (exclaimed enthusiastically).

A high level of detail was often provided to indicate correct process applied to learning and self-regulation. During questioning sequences all student responses were acknowledged, often with the repetition of a correct response or a prompt for an incorrect response:

- *Beautiful. Let's check to see if it is a summary. Has it got the main parts? I think it is an excellent summary. I understand what they have said. Wonderful effort!*

Knowledge. The teacher used a high frequency of declaratives including information about content, instructions and explanation:

- *It is a simile if it is saying something is like something else*.
- *If you want to show me how much you can impress me with all the strategies we have practised you can write them in the blank spaces. For example, predicting …*

Teacher talk and lesson content clearly featured propositional, procedural and conditional knowledge.

Metacognition. 'Thinking aloud' was embedded in classroom talk, and the promotion of SRL was not only addressed in the discussion of thinking but also in the structures in place in the classroom including students rating their confidence in the application of newly learned strategies and the use of a 'Bump It Up' chart, a rubric for the self-assessment of sentence writing. The teacher described thinking processes and also invited students to 'think aloud'. Examples included:

- *Sometimes if you don't know a word you can ask yourself what would make sense to go there?*
- *If you think of a simile first, you can often go to a metaphor from there.*
- *Why do you think that?*
- *How do you know that?*

Questioning. The teacher asked a high frequency of questions, averaging one per 1.9 minutes, generally during the Guided Practice and Review phases. The mix was well balanced in terms of high- and low-order questions. Socratic questioning, purposefully using a series of questions, was common. An example encapsulated an approach to summarising:

- *What are key words;*
- *Why are the most important words useful to us?*
- *What can they help us write in the end?*

Examples of higher-order questions included:

- *Any predictions about what this page is going to be about?*
- *What was the point he was trying to get across?* (What does 'ogres are like onions' mean?)
- *Why do you think that?*

Student dialogue. The teacher provided regular opportunities for students to enter into dialogue with one another, sometimes through well specified tasks such as the explanation of the meaning of 'metaphor' to a friend, as evidence of having met the success criterion.

It was evident that student collaboration was embedded in classroom practice, with word study partner tests noted under routines and the reassurance provided by the teacher at the commencement of the Independent Practice phase: *I will give you lots of support and you can talk to friends too*.

Clarity. Teacher clarity was inferred from two sources of evidence. First, the response of the students to task management (attending to learning tasks) and the transition between phases, and second, the deployment of a range of strategies associated with enhanced clarity.

Student management of transitions and engagement with tasks was efficient, particularly engagement in paired work. This was a result of clear direction and strong scaffolding.

A clear focus was established from the outset of the lesson with learning intentions, success criteria, learning procedures and the usefulness of learning clearly explained. Each focused skill was systematically and logically developed through the lesson and was strongly connected with prior learning.

The teacher used questioning and declaratives to provide explanation, contextual information, and information about learning procedures. A Review phase was used to introduce a new focus, and a Reporting phase preceded a short Conclusion phase.

Clarity was enhanced though the materials that the teacher used through the lesson:

- information recorded on the board;
- charts displayed around the room;
- illustrated and engaging text at the student level;
- worksheets and graphic organisers; and
- a short entertaining but instructive video clip.

***Focus and Curriculum*.** The lesson addressed the requirements of the Australian Curriculum, specifically *Foundation to Year 10 Australian Curriculum: English* (ACARA, 2018).

This figurative language study proceeded through a series of well-connected steps of gradually increasing complexity. Each learning sequence featured a strong focus through a well-structured and planned GRR model. A review phase established the focus of the second learning sequence, which concluded with student sharing in a Reporting phase.

Summary: T10.

Table 32

Summary of the Explicit Teaching Characteristics Evident in Participant Practice/T10

Number	Explicit Teaching Characteristic	Features of Teacher Practice
1.	Structure	Phases regularly sequenced; Review and Report phase used; Teacher–class interaction (80%); student practice 18%); High-level implementation.
2.	GRR	Clearly implemented; High-level implementation.
3.	Context	Clearly implemented in Focus phase; Revisited through the lesson; High-level implementation.

4.	Process	Clearly implemented Learning Goals; Clear information about learning process; Clear information about success criteria; High-level implementation.
5.	Monitoring	Strong active monitoring through questioning, desk supervision and other structures; Full range of responses; High-level implementation.
6.	Feedback	Timely, affirmative, corrective and constructive feedback largely at process and SRL levels; Highly explicit acknowledgement of process and SRL; Strong use of extension prompts; High-level implementation.
7.	Knowledge	Strong use of declaratives; Cognition and metacognition; Procedural, propositional and conditional knowledge; High-level implementation.
8.	Metacognition	Strong 'think aloud', procedural metacognition and SRL focus embedded; SRL structures in place; High-level implementation.
9.	Questioning	Questions to class at a rate of one per 1.9 minutes; Frequent questioning clustered in Guided Practice and Review phases; A mix of high-order and low-order questions; High-level implementation.
10.	Student Dialogue	Student dialogue embedded in learning processes; High-level implementation.
11.	Clarity	Clarity supported by structures; Frequent and clear directions; Range of materials including visual and graphic organisers; High-level implementation.
12	Focus	Strong learning focus maintained; High-level implementation.
13	Curriculum	Australian Curriculum—English; Sequenced development of strategies for editing writing; High-level implementation.

T11.

Curriculum context. The class was engaged in a 4–5 week writing unit working on descriptive language with respect to setting and character in narrative writing. Work on sentences using adjectives and descriptive language had been ongoing.

Typicality. The teacher felt the lesson was typical of his practice, although time might

have been spent on revisiting writing structures. There was no observer effect.

Students' participation was typical and there was no real observer effect on them, although they usually tended to be louder.

Description of the teaching approach.

Structure. The basic lesson structure featured learning instructions in the form of Focus and Review, followed by short Guided Practice phases. This may be a reflection that observations were taken at the midpoint of the unit focusing on the use of descriptive language in narrative writing.

In this case the use of Focus and Conclusion phases was not typical of explicit teaching structures. Observation 1 recorded a lesson of approximately 51 minutes, and was the source for this description. Other observations confirmed its typicality, including the pattern of short Guided Practice phases preceding more substantial Independent Practice phases. The phases observed in chronological order were: Focus, Guided Practice, Independent Practice, Review, Guided Practice, Independent Practice, and Conclusion (Figure 14).

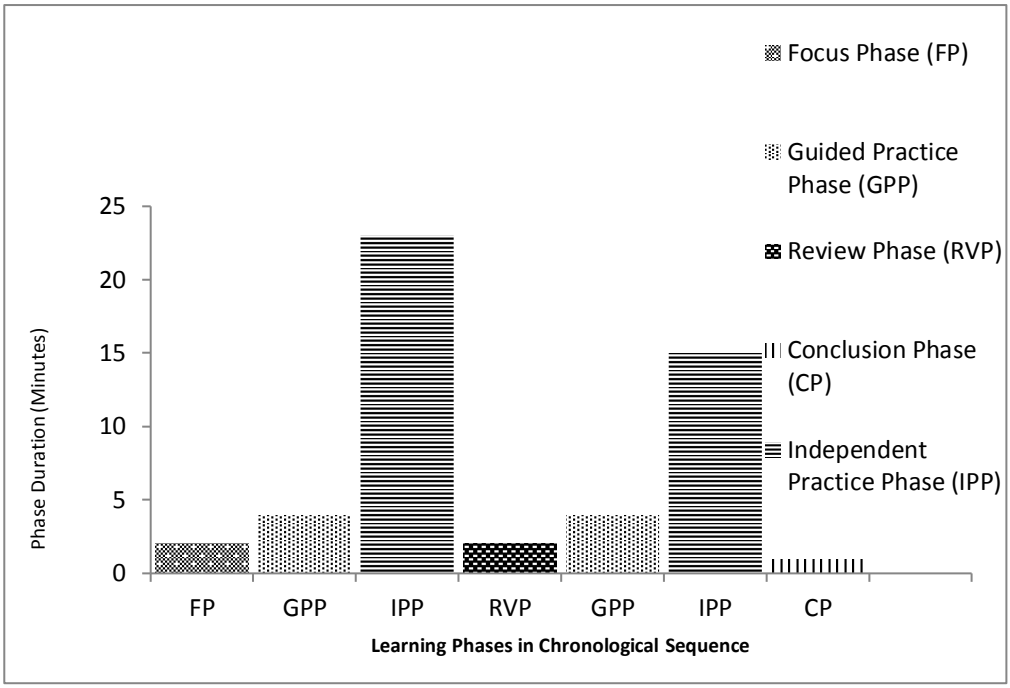

Figure 14. Timing and sequence of learning phases: T11, Observation 1

Gradual release of responsibility (GRR) model. Some alignment between the proceedings of this lesson and the GRR model were in evidence, however, teacher modelling was of a low profile enacted through initial Socratic questioning, followed by guided practice and then affirmative and corrective feedback.

Context. Connections were made to prior learning and in the context of the unit learning objectives.

Process. Learning objectives were established at the beginning of each of the two learning sequences. The first, was to be able to write descriptively about character and setting; the second, to understand the use of complex sentences.

Success criteria were described in terms of the features that students would need to include in their sentences.

Monitoring. The teacher used questioning to sample students' prior knowledge, understanding of key concepts and processes during the Guided Practice phase. During Independent Practice he actively supervised desk work, first ensuring that each student had been able to engage with the task, and encouraged students to seek assistance through quiet, positive and encouraging responses to their requests.

Feedback. The teacher gave affirmative feedback to student responses to questions using brief affirmatives such as '*Good*' and '*Yep*.' He then repeated and paraphrased answers:

Yes, kind of like a menacing smile. That's a good way of describing it. (In response to an answer explaining the meaning of 'sneer'.)

He provided corrective and instructional feedback during Independent Practice, using prompts, questions and making suggestions supported with an explanation:

Good answer, but that is actually used in what sort of sentence?

When assisting with spelling, the teacher first prompted the student to work through a set of strategies to solve the problem.

Knowledge. The teacher used declaratives to provide information about content, instructions and explanation:

- *I want you to write complex sentences about why something is happening, using these connectors: because; since; and 'as a result of'.*
- *The independent clause makes sense on its own but the dependent clause doesn't make sense on its own and starts with a connective.*

The teacher primarily addressed propositional and procedural knowledge.

Metacognition. 'Thinking aloud' did not feature in classroom talk. Procedural metacognition in the context of SRL was represented in the way students were coached to identify and apply sets of strategies to solve literacy problems independently.

Questioning. Overall, a moderate rate of questioning was evident, averaging a rate of one per 3.6 minutes; but given the relatively small proportion of time devoted to teacher–whole class interaction (25%), questioning occurred in Guided Practice phases at a high frequency. Consistent with a Socratic approach to questioning, series of purposeful questions were common:

- *What did we use so far?*
- *What types of sentences were they?*
- *So what are we doing today?*

The majority of questions were addressed to the lesson content and process and of low to medium order.

- *What sort of words do we use when writing a description?*
- *What are the things that a complex sentence should have?*
- *There are two types of clauses. What are they?*

Although some of the recall questions involved some technical complexity, questions that required explanation (why?) were not generally featured.

Student dialogue. There was some evidence of student dialogue when students were asked to decide together the assignment of a set of examples into categories.

Clarity. Teacher clarity was inferred from two sources of evidence. First, the response of the students to task management (attending to learning tasks) and the transition between phases, and second, the deployment of a range of strategies associated with enhanced clarity.

Student management of transition and engagement with tasks was efficient as a result of clear direction and strong scaffolding. The teacher generally gave clear explanations, directions and learning information. Strong connections were established with other learning which provided content for writing. Concept development was supported though consistent use of examples, and regular review.

Clarity was enhanced through the materials that the teacher used during the lesson. The electronic whiteboard was used to display information and mixed media, including a strongly engaging and informative power point and graphic organisers. Choice of text matched students' interest and learning levels. All significant activities would be recorded and the time of their commencement noted.

Focus and Curriculum. The lesson addressed the requirements of the Australian Curriculum, specifically *Foundation to Year 10 Australian Curriculum: English* (ACARA, 2018). The focus on narrative writing was maintained through the exploration of two strategies: use of description and use of complex sentences. Brief review strengthened connections to previous learning.

Summary: T11.

Table 33

Summary of the Explicit Teaching Characteristics Evident in Participant Practice/T11

Number	Explicit Teaching Characteristic	Features of Teacher Practice
1.	Structure	Limited phase use, but some regularity; Review phase used; Teacher–class interaction (24%); student practice (74%); Medium-level implementation.
2.	GRR	Partly implemented; Medium-level implementation.
3.	Context	Partly implemented in Focus phase; Revisited through the lesson; Medium-level implementation.
4.	Process	Clearly implemented Learning Goals; Clear information about learning process; Clear information about success criteria; High-level implementation.
5.	Monitoring	Strong active monitoring through questioning, desk supervision and other structures; Full range of responses; High-level implementation.
6.	Feedback	Timely, affirmative, corrective and constructive feedback largely at process and SRL level; Highly explicit acknowledgement of process and SRL; Strong use of extension prompts; High-level implementation.
7.	Knowledge	Strong use of declaratives; Cognition; Procedural and propositional and knowledge; Medium-level implementation.
8.	Metacognition	Some procedural metacognition and SRL awareness; Medium-level implementation.
9.	Questioning	Questions to class at a rate of one per 3.6 minutes; Frequent questioning clustered in Guided Practice but overall moderate frequency; Predominantly low-order questions; Medium-level implementation.
10.	Student Dialogue	Student dialogue Evident in paired discussion; Medium-level implementation.
11.	Clarity	Clarity supported by structures; Frequent and clear directions; Range of materials including visual and graphic organisers; High-level implementation.
12	Focus	Strong learning focus maintained. High-level implementation.
13	Curriculum	Australian Curriculum—English; Sequenced development of strategies for editing writing; High-level implementation.

T12

Curriculum context. This was a regular writing session introducing the poetry genre. This was the beginning of a unit which would look at a range of simple forms of poetry.

Typicality. The teacher felt that the lesson was typical of the teacher's practice and of the way the teacher worked with that group of students, although the approach in sharing sessions depended on how settled the students were. There was no observer effect. The students were in the typical range, sometimes being better or worse.

Description of the teaching approach.

Structure. The lesson was strongly representative of a conventional explicit teaching structure. Observation 2 recorded a lesson of approximately 47 minutes and was the source of this description. Other observations confirmed its typicality. Observation 2 was chosen rather than the customary Observation 1, as unforeseeable circumstances caused some discontinuity in that observation.

The phases observed in chronological order were: Focus, Modelling, Guided Practice, Independent Practice, Review, Independent Practice, Reporting, Modelling, and Conclusion (see Figure 15).

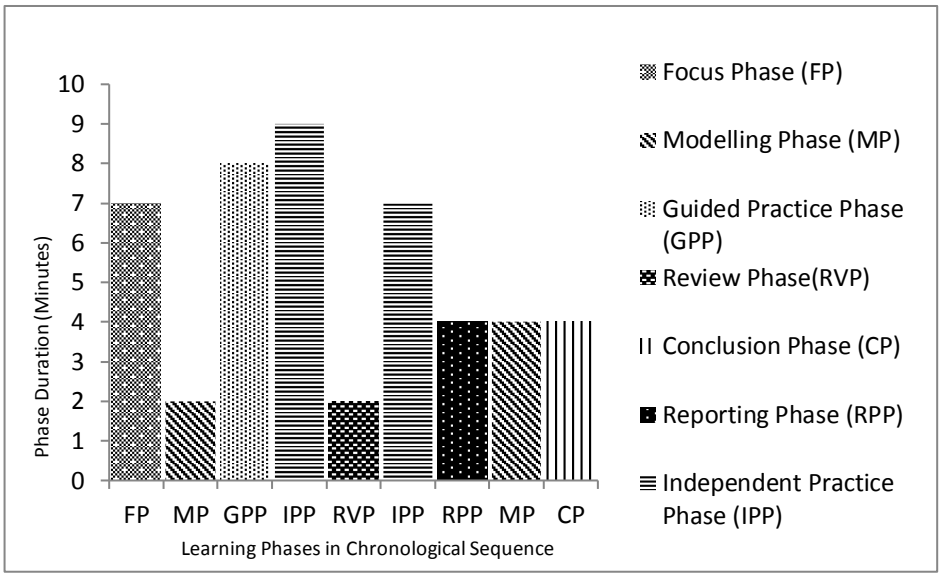

Figure 15. *Timing and sequence of learning phases: T12, Observation 2*

Gradual release of responsibility (GRR) model. The sequence of phases was fully aligned with a conventional GRR model. Review and Reporting phases were used. The second Modelling phase was strongly connected to the continuation of the learning focus in the next lesson, which was foreshadowed in the Conclusion phase.

Context. Clear connections were made with prior learning and the context of the lesson was explained in terms of the overall unit of work. Poetry was discussed as a recreational opportunity for the writer. In the Reporting phase students were asked whether writing poetry could be enjoyable.

Process. The general purpose, to write poetry, was established. The teacher provided clear step-by-step details of learning procedures:

- *I will read you some poems.*
- *We will discuss them.*
- *Then you will write your own free verse poem.*

As the lesson proceeded, the teacher progressively provided students with clear information in a step-by-step account of the learning procedure to follow.

Monitoring. The teacher generally monitored prior learning through questioning during guided instruction and adjusted instruction accordingly. Student understanding was monitored through sharing in a Reporting phase. The teacher asked for questions prior to the Independent Practice phase. Supervision during desk work featured questioning and prompts. Monitoring included brief 'hands up' surveys:

- *Put your hand up if you enjoyed writing a poem today*.

Feedback. Simple affirmative feedback was given for responses to questions, sometimes with minimal elaboration: *Okay*; *All right*; *Good try*; *That's a good description*. Corrective feedback was frequently given during Independent Practice and included questions, prompts, suggestions and explanation.

Metacognition. 'Thinking aloud' did not frequently feature in lesson dialogue, although some metacognition was applied in the context of understanding poetry:

- *What words in there make you imagine a picture?*
- *What does it make you think about?*

Questioning. The teacher asked a relatively high number of questions, averaging one per 2.6 minutes, generally during Guided Practice. Socratic questioning, purposefully using a series of questions, was evident. Many emphasised the role of description in poetry:

- *Why would a poem have a lot of describing words?*
- *What does a reader do? How does a lot of describing words help them?*
- *What does it make you think about?*

The mix of questions was well balanced in terms of high and low-order questions:

- *Why do you think it might be written like that?*
- *Can anyone share anything about the picture?*
- *What is an adjective again?*
- *Can you tell us what you know about poetry?*
- *How could I turn that* (a descriptive sentence) *into a poem?*
- *What does 'rancid' mean?*

Student dialogue. The teacher provided some lightly structured opportunities for students to enter into dialogue, such as *Have a talk with the person next to you and see what they think of the poem* and *What are some of the words in there that make you imagine?*

Clarity. Teacher clarity was inferred from two sources of evidence. First, the response of the students to task management (attending to learning tasks) and the transition between phases, and second, the deployment of a range of strategies associated with enhanced clarity.

Student management of transitions and engagement with tasks was generally efficient. A clear focus on poetry was established from the outset of the lesson with very clear step-by-

step learning procedures explained. The lesson was developed in a logical, well sequenced series of phases which included Review and Reporting phases. The teacher used questioning and declaratives to provide explanation, contextual information and information about learning procedures.

Clarity was enhanced through the materials that the teacher used through the lesson:

- information recorded on the board;
- the use of images;
- evocative and engaging text matching the student interest level.

Focus and Curriculum. The lesson addressed the requirements of the Australian Curriculum, specifically *Foundation to Year 10 Australian Curriculum: English* (ACARA, 2018). The poetry study proceeded through a series of well-connected steps of gradually increasing complexity. The learning focus was maintained through a well-structured and planned GRR model.

Summary: T12.

Table 34

Summary of the Explicit Teaching Characteristics Evident in Participant Practice/T12

Number	Explicit Teaching Characteristic	Features of Teacher Practice
1.	Structure	Conventional phase sequence; Review and Report phases used; Teacher–class interaction (57%); student practice 34%); High-level implementation.
2.	GRR	Clearly implemented; High-level implementation.
3.	Context	Partly implemented in Focus phase; Strong learning connections; Medium-level implementation.
4.	Process	Basic Learning Goals information; Clear information about learning process; Medium-level implementation.
5.	Monitoring	Active monitoring through questioning, desk supervision; Full range of responses; Medium-level implementation.

6.	Feedback	Timely, affirmative and corrective feedback largely at the task level; Some use of extension prompts; Medium-level implementation.
7.	Knowledge	Regular use of declaratives; Some cognition and metacognition; Procedural, propositional and conditional knowledge; Medium-level implementation.
8.	Metacognition	Some procedural metacognition; Medium-level implementation.
9.	Questioning	Questions to class at a rate of one per 2.6 minutes; Frequent questioning clustered in Guided Practice; Balanced mix of questions; High-level implementation.
10.	Student Dialogue	Student dialogue evident in paired discussion; Medium-level implementation.
11.	Clarity	Clarity supported by structures; Frequent and clear directions; Range of materials including visual and graphic organisers; Medium-level implementation.
12	Focus	Strong learning focus maintained; High-level implementation.
13	Curriculum	Australian Curriculum—English; Sequenced development of strategies for editing writing; High-level implementation.

The value of participant descriptions

The previous chapter on methodology provided an initial response to the study's first research question: *How can explicit teaching practices in literacy lessons of primary school teachers be described?* However, in the context of the aims of this study, the usefulness of this approach in describing teacher practice is demonstrated in its role in answering the second and third research questions, discussed in sections 2 and 3 of this chapter.

The question about describing explicit teaching practice is essentially about the applicability of the set of operationally defined teacher behaviours, the Explicit Teaching Construct, to the collection of data to describe explicit teaching in a way that allows discrimination between the practices of individuals and groups.

Three observations and a semi-structured interview provided the researcher with data that offered a picture of each participant's typical approach to classroom teaching. The Explicit Teaching Construct served as a basis for operationalising the explicit teaching concept and demonstrated its capacity to generate a description that features orthodoxy and variation in each individual's application of the characteristics of the construct. The descriptions were, in turn, functional when used in conjunction with a framework (rubric) describing three levels of implementation of each of the thirteen explicit teaching characteristics, providing a measure of the alignment of individual practice with the full Explicit Teaching Construct.

In all, 156 levels of alignment were assigned to the participant cohort as a whole, 110 (70.5%) at a high level of alignment, 38 (24.4%) at a medium level and eight (5.1%) at a low level. These results suggest that it is appropriate to describe the fundamental pedagogy of the cohort as explicit teaching.

The summary of the participant descriptions presents a 13-point profile, from which data is reorganised to facilitate comparison of the practices of individual participants in section 2, and of the high and low SES school cohorts in section 3. The profile provides sufficient descriptive detail for fine discrimination between participant practices, through a review of the implementation of seven 'high-impact' explicit teaching strategies.

Section 2: Participant Comparison

In this section, the second research question, *What are the similarities and differences in explicit teaching practice evident in the study sample?* is addressed through a determination of the main points of similarity and difference in the participants' individual explicit teaching practices.

Alignment of participant practice. The overall high degree of alignment of

participant practice with the characteristics of the Explicit Teaching Construct is evident in the participant description summaries presented in the previous section. Also of note is the general consistency of teacher practice across three observations, as described in the context of validity under the heading 'structure' in the individual participant profiles.

A selection of transformed data from the participant descriptions is presented in tables and graphs (figures) below, providing information about the similarities and differences in the individual practices of the participants. Despite the frequency of high-level alignments, no two participants had identical assignments of alignment levels (see Table 35); from one to seven points of difference can be found when comparing individual participants. Individual scores ranged from 30 to 39, 39 being the maximum possible score. A participant consistently demonstrating a medium alignment would score 26. All participants were designated a high level of alignment on at least six characteristics, further evidence that the common pedagogy of the cohort was essentially explicit in nature. This is confirmed by the fact that the maximum number of low levels of alignment assigned to any one participant was three; and that applied to one participant only. One participant was assigned two low levels of alignment, and a further three participants one only.

Subscription to an explicit teaching pedagogy appears to be the outstanding common feature of the participant cohort, and a number of characteristics appear to be embedded in their practices at a consistently high level of alignment: Monitoring (Characteristic 5); Focus (Characteristic 12); and Curriculum (Characteristic 13). Structure (Characteristic 1), GRR (Characteristic 2) and Clarity (Characteristic 11) were all evident at a high level in a majority of participants' practices, there being one or two participants who exhibited medium-level alignment.

Within the whole cohort, variations were found in the levels of alignment to individual characteristics. Least evident in practice was Student Dialogue (Characteristic 10), with low-

level alignment being assigned to four participants whose lessons showed no evidence of student dialogue. In the cases of another three participants, medium-level alignment reflected some student cooperative work, but not accompanied by the high level of structure identified in the literature as necessary to assure a positive impact on learning. Five participants demonstrated a high level alignment.

Process (Characteristic 4), Metacognition (Characteristic 8) and Questioning (Characteristic 9) were highly aligned with participants' practices in half the cases. Where they were not highly aligned, participants did not use those strategies identified in the literature as critical to the positive outcomes reported for these characteristics. For Process, this entailed a clear specification of the success criteria, so that students could self-monitor their learning and 'close the gap' between their performance and the teacher's expectation. For Metacognition, it entailed embedded 'thinking aloud' and SRL. For Questioning, it entailed high-frequency questions, a balance of high- and low-order questions, and use of a Socratic approach.

Thirty-three per cent of participants were aligned at either medium or low levels with Context (Characteristic 3), indicating they gave insufficient information about the purposes of the learning or its connections to other learning. Forty-two per cent were aligned at either medium or low levels on Feedback (Characteristic 6) and Knowledge (Characteristic 7). For Feedback this indicated a lack of the type of feedback addressed to the task, process and SRL levels (Hattie & Timperley, 2007) described in the literature as the key to the high gain scores associated with the characteristic. In the case of Knowledge it indicated that the use of all three types of knowledge, propositional, procedural and conditional, was not evident during the observations.

The results reveal some minor clustering of participants with respect to low- and medium-level alignments. Five participants had low or medium alignment with both

Metacognition and Questioning; another five with Metacognition and Knowledge; three participants had low alignments with all three characteristics.

Table 35

Levels of Participant Alignment with Explicit Teaching Characteristic Set

		Participants												Characteristic Level Tally			
Characteristic		T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	Score	H	M	L
1	Structure	3	3	3	2	3	3	3	3	3	3	2	3	34	10	2	0
2	GRR	3	3	3	2	3	3	3	3	3	3	2	3	34	10	2	0
3	Context	3	1	2	3	3	3	3	3	3	3	2	2	31	8	3	1
4	Process	3	1	3	3	2	2	2	2	3	3	3	2	29	6	5	1
5	Monitoring	3	3	3	3	3	3	3	3	3	3	3	3	36	12	0	0
6	Feedback	3	3	3	3	2	2	2	1	3	3	3	2	30	7	4	1
7	Knowledge	2	2	3	3	3	3	2	2	3	3	2	2	30	6	6	0
8	Meta-cognition	2	3	3	3	2	2	2	2	3	3	2	2	29	5	7	0
9	Questioning	2	3	3	3	3	2	2	1	2	3	2	3	29	6	5	1
10	Student Dialogue	2	3	1	1	3	3	1	1	3	3	2	2	25	6	2	4
11	Clarity	3	3	3	3	3	3	3	3	3	3	3	2	35	11	1	0
12	Focus	3	3	3	3	3	3	3	3	3	3	3	3	36	12	0	0
13	Curriculum	3	3	3	3	3	3	3	3	3	3	3	3	36	12	0	0
Total Score		35	34	36	35	36	35	32	30	38	39	32	32				

An analysis of the use of seven high-impact strategies in practice, each highly aligned with the relevant characteristic, reveal a greater level of variation between participants than did the overall alignment of characteristics. The average alignment score was $M = 34.5$ ($SD = 2.65$). The average score for use of high-impact strategies was $M = 23.9$ (adjusted for the purpose of comparison) ($SD = 9.75$). The respective standard deviation scores, 2.65 and 9.75, provide a measure of variation across the sample.

Twenty five percent of participants utilised less than a half the high-impact strategies. Two strategies were missing from the repertoires of fifty percent of the participants, and another two strategies from the repertoires of thirty three percent (see Table 38).

Lesson structure in participant practice. A high level of alignment between participant practice and the structural characteristics of explicit teaching, Structure (Characteristic 1) and GRR (Characteristic 2) was evident in the observations (see Table 35). Table 36 provides information about the duration of phases. Observational data for each participant's phase use was graphed (see Figures 2–13) and provides evidence for the assignment of alignments with practice for these two characteristics. With the exception of two participants, T4 and T11, the core five phases, Focus, Modelling, Guided Practice, Independent Practice and Conclusion, were all in place. In both exceptions the Modelling phase was not in evidence, but the other phases were in sequence.

Table 36

Duration and Percentage of Total Lesson Time of Individual Lesson phases, and Combined Teacher–Student Interaction phases, for Individual Participants with Cohort Means

	Phase Duration (minutes) / % Total Lesson Time								
Teacher	*FP*	*MP*	*GPP*	*RVP*	*RPP*	*Total TSI*	*IPP*	*CP*	*TIME (Mins.)*
T1	8/18	5/11	10/22	10/22	0	33/73	9/20	3/7	45
T2	7/13	6/12	10/19	5/10	5/10	31/60	17/33	4/8	52
T3	4/11	4/11	8/22	0	9/24	25/68	10/27	2/5	37
T4	5/9	0	25/46	0	5/9	35/65	17/31	2/4	54
T5	2/3	6/10	24/40	3/5	0	35/58	23/38	2/3	60
T6	3/8	7/8	7/18	0	4/10	21/54	17/44	1/3	39
T7	4/12	6/18	9/26	3/9	0	22/65	10/29	2/6	34
T8	3/8	5/13	10/25	2/5	0	20/50	12/45	2/5	40
T9	2/3	5/8	24/40	3/5	4/7	38/63	20/35	2/3	60
T10	3/5	4/7	24/43	10/18	4/7	45/80	10/18	1/2	56
T11	2/4	0	8/16	2/4	0	12/24	38/74	1/2	51
T12	7/15	6/13	8/17	2/4	4/9	27/57	16/34	4/9	47
Cohort Means	4/8	5/10	14/29	3/6	3/6	29/60	17/35	2/4	48
SD	2.12489/ 4.87029	2.27636/ 5.20708	7.69248 11.14059	3.44656/ 6.97832	2.90637/ 7.101	9.19816/ 13.93573	8.09555/ 13.96623	1.02986/ 2.34036	8.17378
Cohort Means excluding null scores	NA	5/11	NA	4/8	5/10	NA	NA		
SD		.96609/ 3.21282		3.28295/ 6.60387	1.82574/ 5.92814				

Eleven of twelve participants spent fifty percent or more of class time in phases that involved teacher–class interaction; that is, in Focus, Modelling, Guided Practice, Reporting and Review (Figure 16). The cohort mean was *M* = 60% (*SD* = 13.93573).

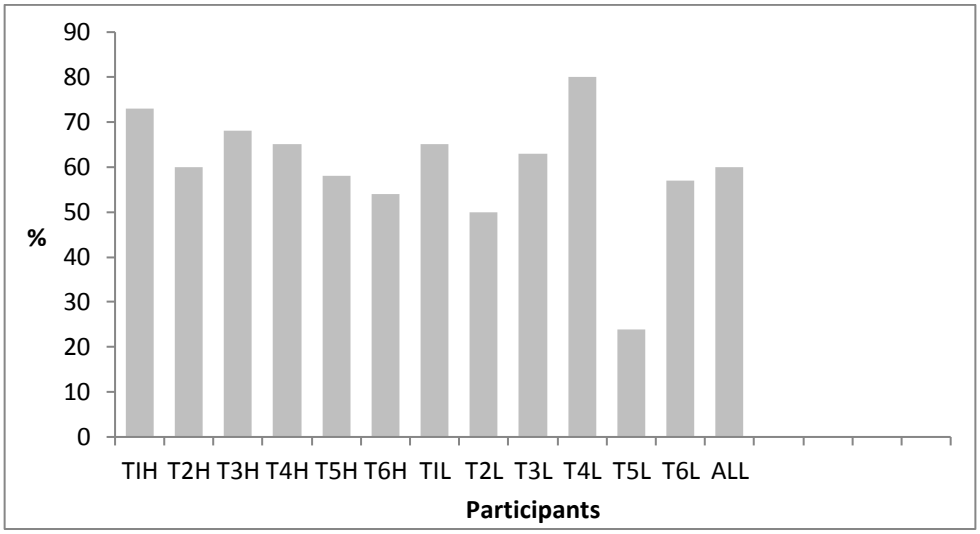

Figure 16. Percentage (%) of lesson time spent in teacher–class interaction by participant and cohort

Conversely, seventy five percent of the participants spent less than forty percent of lesson time in the Independent Practice phase (Figure 17), a cohort mean of *M* = 37% (*SD* = 13.96623).

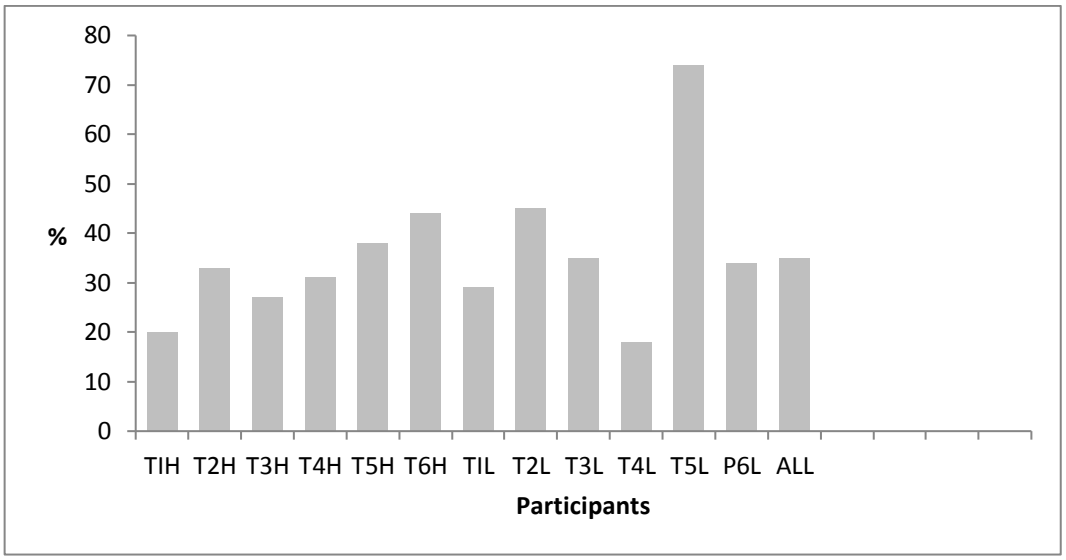

Figure 17. Percentage (%) of lesson time spent in independent practice by participants and cohort

Considering there was one extreme and atypical result, with a converse pattern of seventy four percent of class time spent in the Independent Practice phase and twenty four percent spent in the combined teacher–class interaction phase, the congruence in the majority of the cohort was greater than statistical measures indicate.

The Conclusion phase was uniformly brief, with a maximum duration of four minutes and a cohort mean of two minutes, M = 2 (SD = 1.02986) or four per cent of class time, M = 4, (SD = 2.34036). The Guided Practice phase was generally the second most substantial in a lesson, after Independent Practice, with a mean duration of fourteen minutes, M = 14, (SD = 7.69248) taking a mean twenty nine percent of lesson time, M = 29, (SD = 11.14059). In four observations Guided Practice exceeded the time spent on Independent Practice. The Focus phase was more varied, ranging from two to eight minutes with a mean duration of four minutes, M = 4 (SD = 2.12489) and a mean percentage of class time of nine per cent, M = 9, (SD = 4.87029). Despite the variations these results further confirm a largely common practice.

The two phases reported in the literature as common but not specifically tied to a sequence, Reporting and Reviewing, were not always in evidence, and their positioning in lessons was variable.

With respect to the two participants whose practices fell outside the norm for the cohort, for T4 the majority of indicators, apart from the missing Modelling phase, were regular, including the balance of teacher–class interaction and independent practice, which both approached the norm for the group. In the case of T11, the omission of the Modelling phase plus the atypical duration of teacher–class interaction relative to Independent Practice constituted two major departures from the cohort norm.

The transformed data from the individual profiles enabled the identification of a strong common explicit teaching practice in the cohort. Graphs and tables represent the quantitative

data from records of duration and sequence, and the quantitised data arising from the classification of phases, based upon observation of content and transitions. The process was sensitive to the variations in the practices of individual participants from cohort norms.

Questioning in participant practice. Questioning is strongly identified in the literature as a significant characteristic of explicit teaching. In this study two quantitative dimensions were identified as important elements in influencing a positive effect: a high frequency of questioning and a balanced mix, approaching parity, of high- and low-order questions. Frequency of questioning was calculated over the duration of the lesson and over teacher-class interaction phases. The results are represented in Table 37. Further discussion of the approach to recording and classifying questioning is provided in Chapter 5.

Table 37

Participant Questioning Features: Frequency (Minutes per Question) over Duration of Lesson, over Combined Teacher– Class Interaction Phase and Question Mix

Participant	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	Mean
Frequency (minutes per question) averaged over whole literacy session	5.5	2.4	2.2	2.0	1.2	3.0	1.8	3.6	4.0	1.9	3.6	2.6	2.8
Frequency (minutes per question) averaged over teacher–class interaction time.	4	1.4	1.5	1.3	0.7	1.6	1.2	1.8	2.5	1.5	0.8	1.5	1.7
Question mix	H	H	H	B	B	L	L	L	B	B	L	B	-

Notes: T1 = Teacher 1 etc.
Question mix: balanced (B), favouring low-order (L), favouring high-order (H)

The term ‘question mix’ refers to a predominance of high-order questions (H), a mix approaching an even number of high-order and low-order (B), and a predominance of low-order questions (L). Four participants, T4, T5, T10 and T12, with questioning rates below the cohort mean, presented a balanced mix. Three, T6, T8 and T11, with questioning rates above

the cohort mean, used predominantly low-order questions. Other participants variously combined predominantly high-order or low-order questions with a high or low rate of questions overall. This is consistent with the relatively low alignment reported for the Questioning characteristic, in which only six participants demonstrated a high level of alignment (Table 37).

Questioning was one of seven high-impact strategies chosen to further explore the patterns of similarities and differences in the explicit teaching practices of the cohort, as it represents an important area of variance.

High-impact strategies in participant practice. In order to examine possible variations in individual participant practice more closely, seven high-impact strategies were drawn from the Explicit Teaching Construct for further analysis; a rationale for the selection is presented in Chapter 3, High-impact strategies. Three of the strategies may be seen as individual components or subsidiary strategies, drawn from within characteristics: the use of explicit success criteria from Purpose (number 4), the use of propositional, procedural and conditional knowledge from Knowledge (number 7), and the use of ‘many examples’ from Clarity (number 11). The cohort mean score for high-impact strategies was 4.7 (not to be confused with the adjusted/weighted mean score used for comparison with the mean alignment score), $M = 4.7$, ($SD = 1.87487$), with seven participants scoring below the mean (Table 38).

Table 38

Participants' Use of Seven High-Impact Explicit Teaching Strategies

High-Impact Strategy	Participant												
	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	Totals
Gradual Release of Responsibility Model	√	√	√	√	√	√	√	√	√	√	0	√	11
Explicit Success Criteria	√	0	√	√	0	√	0	0	√	√	√	0	7
Feedback at process & SRL levels	√	√	√	√	0	0	√	0	√	√	√	0	8
Types of knowledge propositional, procedural, conditional	√	0	√	√	√	√	0	0	√	√	√	√	9
Embedded 'Think Aloud' and SRL	√	√	√	√	0	0	0	0	√	√	0	0	6
Socratic questioning, mix of orders, high frequency	0	√	√	√	√	0	0	0	0	√	0	√	6
Use of many examples	√	0	√	√	√	√	0	√	√	√	√	0	9
Totals	6	4	7	7	4	4	2	2	6	7	4	3	

The high-impact strategy scores and the Explicit Teaching Alignment scores were amalgamated to produce a ranking of participants. The introduction of the high-impact strategy set made little difference to the ranking based on Alignment scores only (Table 39), in part because each of the high-impact strategies is either wholly or partly sourced from those characteristics that are the subjects of the alignment levels. Of interest is the ranking of participant T5, who on Alignment scores alone ranked equal third, but who ranked sixth in the aggregated scores. That aside, the rankings and measures of variability suggest that a major point of difference between individual participants may have been the deployment of high-impact strategies in their explicit teaching repertoires.

Table 39

Participant Ranking by Aggregated Alignment and High-Impact Strategy scores

Participant	Alignment score	High-Impact Strategy score	Total	Rank
T10	39	7	46	1
T9	38	6	44	2
T3	36	7	43	3
T4	35	7	42	4
T1	35	6	41	5
T5	36	4	40	6
T6	35	4	39	7
T2	34	4	38	8
T11	32	4	36	9
T7	32	2	34	10
T12	31	3	34	11
T8	30	2	32	12

Summary of the comparison of participant practice. The results provide ample evidence of an explicit teaching pedagogy in place across the cohort. Less than a medium-level alignment of practice with the explicit teaching characteristics was evident in only five per cent of the alignments, and high congruence was recorded for Monitoring, Focus, Curriculum, GRR and Clarity. Difference features most frequently in Student Dialogue, Process, Metacognition and Questioning, and to a lesser extent in Feedback, Knowledge and Context.

A high level of orthodoxy was noted in the teachers' structuring of learning into phases, particularly the embedded nature of the GRR model. Measures of duration indicate some individual variations, but greater variations were evident in the individual use of the high-impact strategies selected for deeper analysis.

Section 3: High and Low SES School Participant Comparison

In this section, the third research question: *Are there differences in the explicit teaching of literacy in low SES and high SES primary school classrooms?* is addressed through a comparison of the explicit teaching practices of the two cohorts, the high SES school participants (N = 6) and the low SES school participants (N= 6).

Comparison of alignment scores for high and low SES cohorts. The focus on different explicit teaching practices across these two cohorts was prompted by the suggestion that low SES students experienced less explicit instruction. (CESE, 2014; Freebody, Ludwig & Gunn, 1995). The average scores for each cohort's alignment with explicit teaching characteristics are presented in Table 40. Variations between SES means occurred in eight of the 13 characteristics, favouring the high SES cohort in six instances.

Table 40

Average High and Low SES Participant Alignment Scores for Explicit Teaching Characteristics

Statistics												
	Low SES						High SES					
	Valid	Missing	Mean	SD	Min.	Max.	Valid	Missing	Mean	SD	Min.	Max.
Structure	6	0	2.83	.408	2	3	6	0	2.83	.408	2	3
GRR	6	0	2.83	.408	2	3	6	0	2.83	.408	2	3
Context	6	0	2.67	.516	2	3	6	0	2.50	.837	1	3
Process	6	0	2.50	.548	2	3	6	0	2.33	.816	1	3
Monitoring	6	0	3.00	.000	3	3	6	0	3.00	.000	3	3
Feedback	6	0	2.33	.516	1	3	6	0	2.67	.516	2	3
Knowledge	6	0	2.33	.516	2	3	6	0	2.67	.516	2	3
Metacognition	6	0	2.33	.516	2	3	6	0	2.50	.548	2	3
Questioning	6	0	2.17	.753	1	3	6	0	2.67	.516	2	3
Student Dialogue	6	0	2.00	.894	1	3	6	0	2.17	.983	1	3
Clarity	6	0	2.83		2	3	6	0	3.00	.000	3	3
Focus	6	0	3.00	.000	3	3	6	0	3.00	.000	3	3
Curriculum	6	0	3.00	.000	3	3	6	0	3.00	.000	3	3

A t-test was applied to the Average Characteristic Alignment Score means for low SES and high SES cohorts (Table 41).

Table 41

Alignment Score Means for SES

	Group Statistics				
Average Alignment Score	SES level	N	Mean	SD	Std. Error Mean
	Low SES	6	2.6026	.28541	.11652
	High SES	6	2.7051	.05791	.02364

The high SES cohort had a higher average alignment score (M = 2.7051, SD = .05791) than the low cohort (M = 2.6026, SD = .11652). The t-test result indicated no significant effect attributed to SES (t = .863, p = .409, not significant at $p < .05$). A measure of mean difference between the groups, effect size, yielded a positive outcome suggesting an effect approaching a medium level for SES (Cohen's d = 0.497748, Hedges' g = 0.497748).

Participant alignment clusters. Three clusters of participants were evident in the alignment scores (Figure 18). The highest two rankings were occupied by low SES school participants, T10 and T9. The largest cluster, the entire high SES school participant cohort of T3, T4, T1, T5, T6 and T2, in order of score, occupied rankings 3 to 8. A third cluster, the remaining four low SES school participants, T11, T7, T12 and T8, in order, occupied the lowest four rankings.

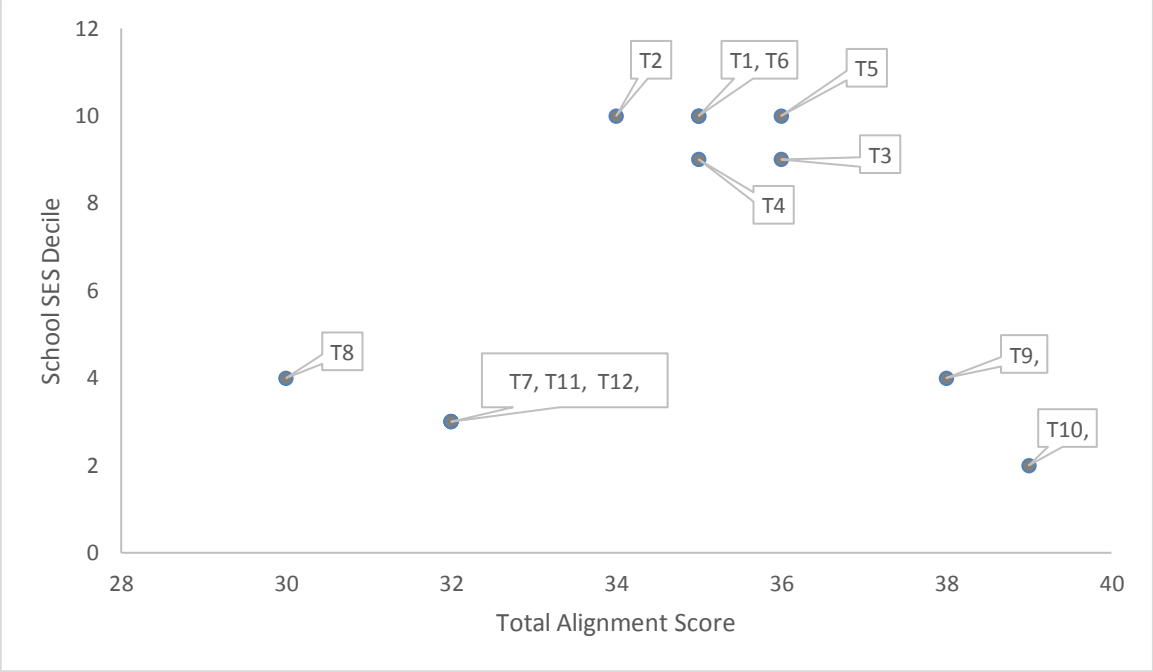

Figure 18. Scatter plot of school SES decile against participant alignment score

Two significant points were considered: first, the majority of low SES school participants have lower alignment scores than all the high SES school participants; second, the clustering of the low SES school participants at the two extremes of the order inflates the mean shared by all low SES school participants. In fact the mean alignment score for the four lowest ranked low SES school participants was $M = 31.5$ ($SD = 1$), compared with the mean characteristic alignment score for the high SES cohort $M = 35.2$ ($SD = .75277$) and for the whole low SES cohort $M = 33.7$ ($SD = 3.71035$).

A t-test was applied to the characteristic alignment score means for the low SES low cluster and the high SES cohort (Table 42).

Table 42

Average Alignment Score Means for Low Cluster SES and High SES

	Group Statistics				
Average Alignment Score	SES level	N	Mean	SD	Std. Error Mean
	Low SES	4	2.4231	.07695	.0385
	High SES	6	2.7051	.05791	.02364

The high SES cohort had a higher average alignment score (M = 2.7051, SD = .07591) than the low cluster SES cohort (M = 2.4231, SD = .07695). The t-test result indicates a significant effect attributed to SES (t = 6.6529, p = .00016, significant at $p < .05$). A measure of mean difference between the groups, effect size, yielded a positive outcome, suggesting an extremely high effect level for SES (Cohen's d = 6.784269, Hedges' g = 7.031981).

Comparison of SES cohort mean scores for high-impact strategies. A similar approach was taken to explore the relationship between SES cohorts and high-impact strategies.

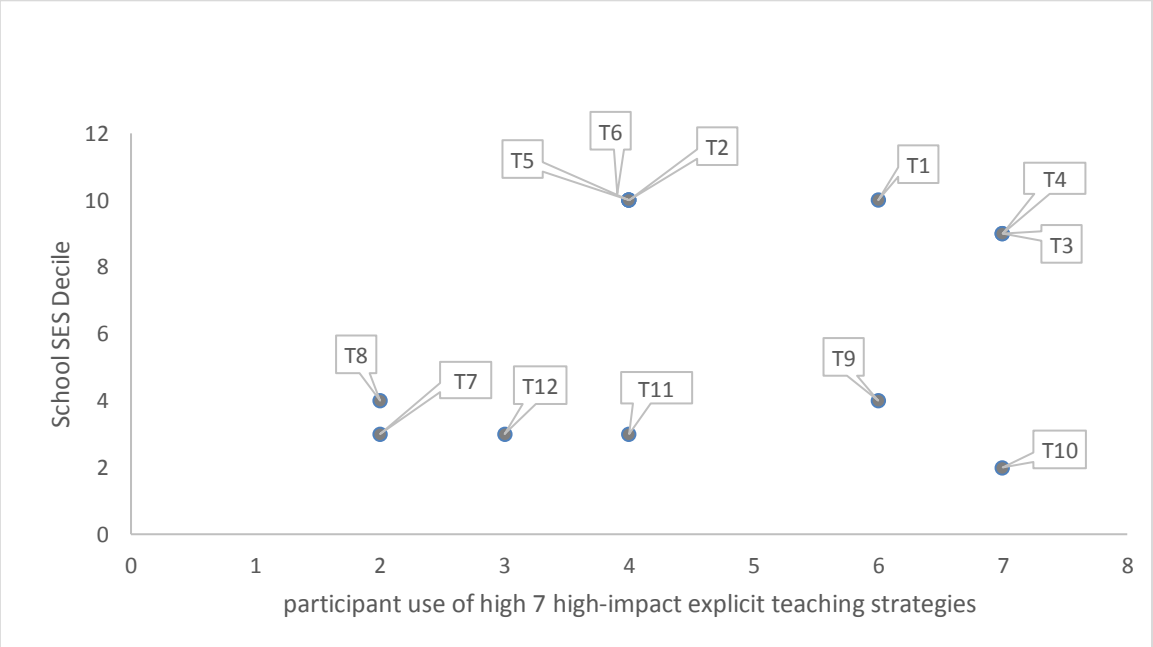

Figure 19. Scatter plot of SES decile against participant use of seven high-impact explicit teaching strategies

The high SES cohort's mean score was M = 5.3 (SD = 1.505), compared with a mean of M = 4 (SD = 2.09762) for the low SES cohort. In this case the clusters are not so clear, but among the low SES cohort, T11 has a score equivalent to that of the lowest high SES school participants (a score of 4), while T12 (3), T7 (2) and T8 (2) occupy the last three rankings. See Figure 19 for an illustration of the positions of T7, T8, T11 and T12 relative to the high

SES school cohort. A t-test was applied to the high-impact strategy score means for both cohorts (Table 43).

Table 43

High-Impact Strategy Scores for High SES and Low SES Cohorts

	Group Statistics				
High-Impact Strategy Score	SES level	N	Mean	SD	Std. Error Mean
	Low SES	6	4.0	2.0976	.8563
	High SES	6	5.33	1.5056	.6146

The t-test result indicated no significant effect attributed to SES (t = 1.26491, p = .23458, not significant at $p < .05$). A measure of mean difference between the groups, effect size, yielded a positive outcome suggesting an effect at a medium level or above for SES (Cohen's d = 0.72847)

Comparison of mean scores for high and low SES school cohorts. Means from the data collection that may have relevance to the question were calculated for each cohort and tabulated to provide an overview (Table 44). Some data demonstrated small variations consistent with a marginally greater experience of explicit teaching for high than for low SES students. The mean characteristic alignment total score for high SES school participants was M = 35.2 (SD = .75277), compared with M = 33.7 (SD = 3.71035) for their counterparts. This result was considered in conjunction with the relative rankings of participants, based on aggregated alignment and high-impact strategy scores (Table 39). The high SES school cohort's mean score was M = 5.3 (SD = 1.5055), compared with a mean of M = 4 (SD = 2.09762) for the low SES cohort. The mean score for the four lowest ranked low SES school participants was M = 2.8 (SD = .95743).

Table 44

Comparison of Mean Scores for Selected Indicators for High and Low SES School Cohorts

Indicator	Mean(SD)	
	High SES	Low SES
Characteristic Alignment Scores	35.2 (.75277)	33.7 (3.71035)
High-Impact Strategy Score	5.3 (.6146)	4 (.8563)
Question Rate (minutes per question)	2.7 (1.4838)	2.9 (.9474)
Lesson Duration (minutes)	47.8 (9.0203)	48 (9.7775)
Combined Teacher–Class Interaction Phase Duration (mins)	30 (5.76194)	27.3 (12.19289)
Combined Teacher–Class Interaction Percentage	63% (6.9857)	56.9% (18.79)
Modelling Phase Duration (minutes) (null scores removed)	5.6 (1.14018)	5.2 (0.8366)
Modelling Phase Percentage (null scores removed)	10.8% (1.51658)	11.7% (4.4385)
Focus Phase Duration (minutes)	4.8 (2.31661)	3.5 (1.87083)
Focus Phase Percentage	10% (5.04645)	7.8% (4.79236)
Guided Practice Phase Duration (minutes)	14 (8.22192)	13.8 (7.90991)
Guided Practice Phase Percentage	27.8% (12.0069)	27.8% (11.374)
Independent Practice Phase Duration (minutes)	15.5 (5.20577)	17.3 (10.68956)
Independent Practice Phase Percentage	32.2% (8.37655)	39.2% (19.198)

Note: Questioning rate was averaged over the lesson

The statistical analysis reported above described a differential experience of explicit teaching between the SES cohorts with the high SES cohort recording the higher scores. Comparisons involving the cluster of four low SES school participants demonstrated the greatest differential in terms of alignment scores and high-impact strategy usage.

The questioning rate means (average minutes per question) for the two cohorts were similarly in favour of high SES school participants, who averaged one question every 2.7 minutes, $M = 2.7$, ($SD = 1.4838$) compared with low SES school participants who averaged one question every 2.9 minutes, $M = 2.9$, ($SD = .9474$), the preferred rate being the higher frequency of questions, indicated by fewer minutes. See Figure 20 below for an illustration of

the similar spread of the cohorts with respect to questioning frequency, with the exception of Teacher 1.

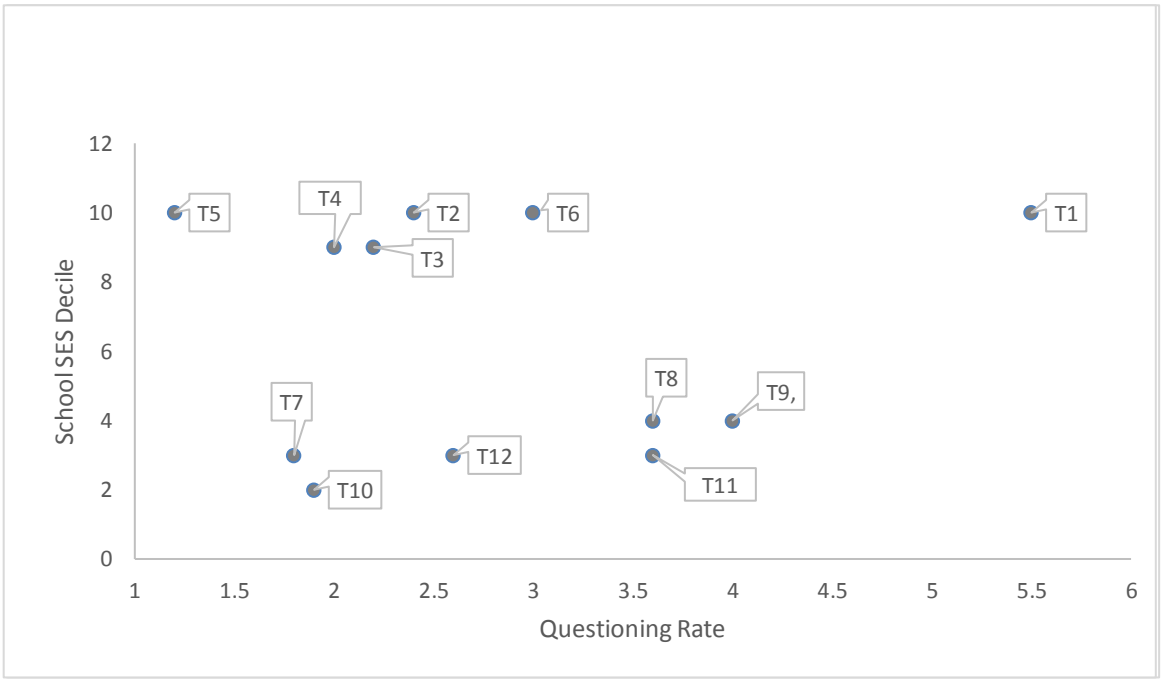

Figure 20. Scatter plot of school SES decile against participant questioning rates

The subgroup of four participants, T7, T8, T11 and T12 (previously considered with respect to alignment and high-impact strategy scores) produced the same question frequency mean, $M = 2.9$, ($SD = .87178$) as the full low SES cohort. Nevertheless, reference to Table 37 above shows that apart from T12, who asked a balance of high and low-order questions, the other three predominantly asked low-order questions. Of note was the predominance of high-order questions asked by three high SES school participants, T1, T2 and T3. With regard to the ideal, a balance of high and low-order questions, two high and three low SES school participants achieved such a balance.

Comparison of phase duration for high and low SES school cohorts. Prior to the consideration of the details of the phases, the overall duration of the lessons was considered. Participants' use of learning phases was also investigated by comparing phase duration means. In this case the means represent the percentage of class time allocated to a particular phase or phases. There was very little evidence of significant differences between the cohorts.

A t-test was applied to lesson duration means for low SES and high SES cohorts (Table 45).

Table 45

Lesson Duration for High and Low SES Cohorts

	Group Statistics				
Lesson Duration (mins)	SES level	N	Mean	SD	Std. Error Mean
	Low SES	6	48	9.7775	3.9917
	High SES	6	47.833	9.0203	3.6825

The high (M = 47.833, SD = 9.0203) and low (M = 48.0, SD = 9.7775) cohorts had a very similar mean lesson duration, and also a similar range of scores, as indicated by the standard deviations. The t-test result indicates no significant effect attributed to SES (t = 031, p = .976, not significant at $p < .05$). A measure of mean difference between the groups, effect size, yields a similarly negative outcome, confirming no effect for SES (Cohen's d = 0.017754).

For both cohorts, the means (in minutes) for the time spent in specific phases were, for the high and low cohorts respectively:

- for the combination of phases that featured teacher–class interaction

  M = 30 (SD = 5.76194) and M = 27.3 (SD = 12.19289);

- for the Independent Practice phase

  M = 15.5 (SD = 5.20577) and M = 17.3 (SD = 10.68956);

- for the Guided Practice phase

  M = 14 (SD = 8.22192) and M= 13.8 (SD = 7.90991);

- for the Modelling phase

  M = 5.6 (SD = 1.14018) and M = 5.2 (SD = 0.8366).

As has been previously discussed, there is evidence of relative consistency in the structuring of learning across the whole cohort. Here the actual duration of phases was compared on the basis that actual instruction time represents the primary data. While in general terms the means compare closely, more variation was noted with respect to standard deviation. Effect size measures, Cohen's *d*, and where different, Hedges' *g*, provided further indications of possible variations between the cohorts.

While negligible effect was evident for SES with respect to the Guided Practice phase ($d = 0.024791$) and the Conclusion phase ($d = 0.0328$), small to medium effects were evident in other cases, given that measures of 0.2 equate to a small effect, 0.5 to a medium effect, and 0.8 to a large effect (Sawilowsky, 2009). A small effect was evident for combined teacher–class interaction phases ($d = 0.283141$), and for the Independent Practice phase ($d = 0.24009$). A medium or near-medium effect was evident for the Focus phase ($d = 0.617416$) and Modelling phase ($d = 0.400009$).

The data portrays teachers of high SES students as spending more time in all phases involving teacher–student interaction except for guided practice, which is similar in both cohorts, while teachers of low SES students devote more time to independent practice.

The atypical pattern of phase data previously noted for T11 was considered in terms of its potential impact on cohort data, given the small sample size. T11's use of teacher–class interaction phases (24% of lesson time) contrasted with all other participants' use of at least 50% of lesson time (Figure 21), and T11's independent practice represented 74% of class time, contrasting with a maximum 45% among all other participants. A recalculation of data, with T11 excluded, resulted in a reversal of the relative positions of the two SES cohorts.

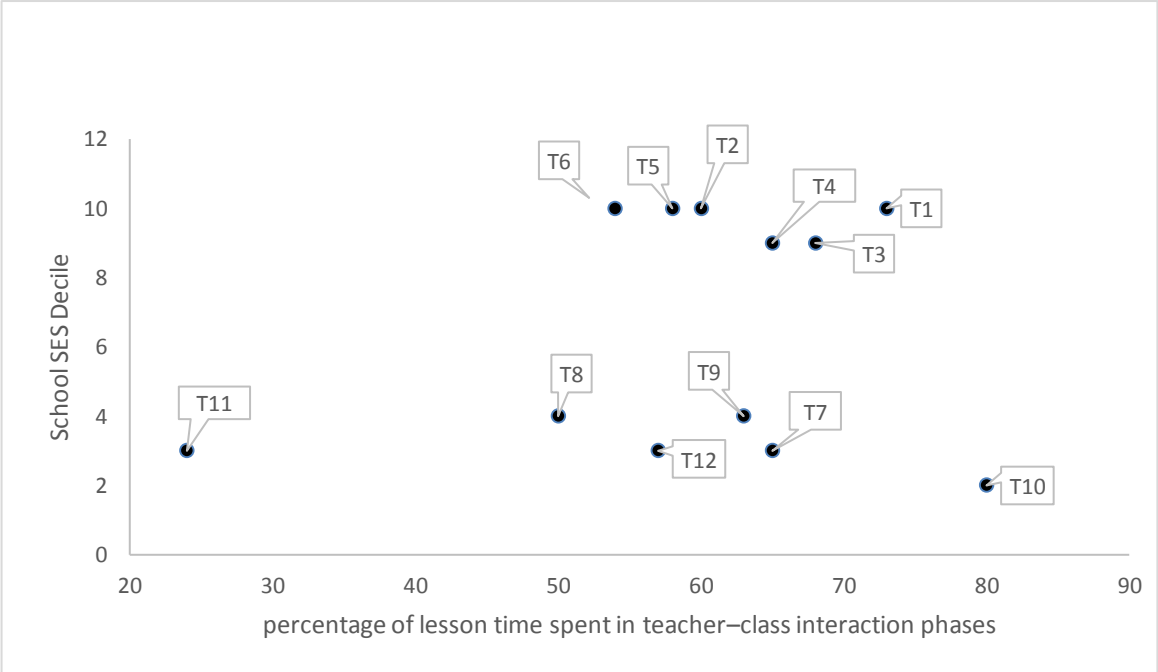

Figure 21. Scatter plot of school SES against participant percentage of lesson time spent in teacher–class interaction phases

The low SES cohort produced a marginally greater mean duration of teacher–class interaction phases (M = 30.8, SD = 11.43241) than the high SES cohort (M = 30, SD = 5.76194), but its mean duration of the Independent Practice phase (M = 13.6, SD = 4.3359) was lower (M = 15.5, SD = 5.20577).

The effect for the combined teacher–class interaction phases became negligible (d = 0.088945, g = 0.092154). The effect size for the Independent Practice phase increased, approaching a medium effect (d = 0.36608, g = 392683), but now indicating that low SES students experienced marginally less independent practice than their high SES peers. Some effects attributable to SES were apparent with regard to individual phases, but not to a degree that might suggest that phase use was a major point of difference between the cohorts.

The two non-sequential phases, the Review and the Reporting phases, were not consistently present in participants' practice. Five participants (41.7%), two high SES and

three low SES, did not use a Reporting phase. 50% of the high SES cohort did not use a Review phase, contrasting with full use by the low SES cohort. Average duration in minutes of Reporting phases was $M = 5.75$ ($SD = 2.21736$) for the high SES cohort and $M = 4$ ($SD = 0$) for the low. Effect size, computed by attributing a minimal SD of 0.0001 to the low SES cohort, indicated a huge SES effect ($d = 3.591567$, $g = 3.278638$).

Average duration in minutes of Review phases was $M = 6$ ($SD = 3.60555$) for the high SES cohort and $M = 3.67$ ($SD = 3.14113$) for the low. Effect size indicated a medium to large effect ($d = 0.689079$, $g = 0.71025$). It was noted that both phases, when present in the high SES classroom, tended to be longer than in the low SES classroom.

Measures of effect size reported for phases have been treated with some caution. The variability in the practice of individual participants has in part been illustrated by the range of standard deviations represented in the descriptive statistics. The potential impact of that variability has been demonstrated through the investigation of one atypical case. Nevertheless, a detailed range of data describes both similarity and variability in the results. The implications of these results, with respect to the purposes of this study, are discussed in the next chapter.

Summary

This chapter has provided a report on the analysis and transformation of the data collected through observation and semi-structured interview, and specifically the findings with respect to the three research questions. Section 1 described how the Explicit Teaching Construct, applied as the explicit teaching characteristic observation set, yielded data that provided descriptions of the explicit practices of the participants. From those descriptions summary profiles provided a basis for making comparisons.

The comprehensive Explicit Teaching Construct captured the essence of the multi-layered nature of explicit teaching. It is clear that explicit teaching can be described in such a

way that quantitative and quantitised qualitative data can produce meaningful comparisons of individual and cohort practices.

Section 2 described the findings relating to the high level of congruence in explicit teaching practices across the participant cohort, and the characteristics within which the most variance in individual practice was to be found. Section 3 described the findings relating to the comparison of explicit teaching in low and high SES schools. Chapter 5 discusses the findings in the context of this study, and of the wider and prominent educational discourse on explicit teaching and teacher effectiveness. The discussion examines the results and implications.

Chapter 5: Discussion

Introduction

In this chapter the initial context for the study is revisited and the links between that context, the research questions, and the results are discussed and appraised. The discussion explores how well the research questions of the study have been answered, and what measure of value may have resulted. After locating the concept of explicit teaching in a relevant educational discourse, the necessary preliminary stage in the consideration of the first research question, *How can explicit teaching practices in literacy lessons of primary school teachers be described?* has been answered with the development of the Explicit Teaching Construct.

The 13 characteristics, selected as the component parts of the Explicit Teaching Construct, are examined in light of the findings relating to the second research question, *What are the similarities and differences in explicit teaching practice evident in the study sample?,* and the third research question, *Are there differences in the explicit teaching of literacy in low SES and high SES primary school classrooms?* The significance of the results relating to the individual characteristics is also discussed and where relevant related to the overall explicit teaching approach.

The clear outcome of the study has been the finding that all participants demonstrated an explicit teaching approach in their classroom practice. However, caution must be exercised with respect to conclusions drawn from the data through interpretation of descriptive statistics and statistical analysis, given the small sample of twelve participants. This is particularly the case with respect to SES comparisons where each cohort comprised six participants. Where indications of difference have been reported, this may be a pointer to the need for focused studies using larger samples.

While on the surface the study sought to provide meaningful descriptions of teacher practices, the success of this aim, confirms an initiatory role for the study as it might provide a platform for investigating improved student outcomes. The type of data generated by the approach has the potential to provide greater certainty about the mix of strategies in an explicit teaching repertoire that will realise the greatest learning outcomes for students. Consequently, the discussion touches on a range of possibilities for further investigation and raises questions germane to the central concerns about the nature of explicit teaching and how it manifests in individual practice.

Clearly, the process and artefacts developed through this study can be related to the development of effective teaching practices. Over an extended period, data about classroom dialogue and explicit teaching practices generated by observation tools have not only served to increase understanding of teacher effectiveness, but have served as the basis for reflective professional learning (Alexander, 2017; Edwards-Groves, 1998; Flanders, 1961; Howe, Hennessey & Mercer, 2018). The refinement of teacher practice to produce improved student outcomes is a persistent theme in the public discourse. Reflecting on the situation in the United Kingdom, Machin and Murphy (2011) stated that

> bringing the lowest performing 5–10 per cent of teachers in the UK up to the average would greatly boost attainment and lead to a sharp improvement in the UK's international ranking … in 5 years the UK's rank amongst OECD countries would improve from 21st in reading to as high as 7th. (p. 5)

Muijs et al. (2014) explained that the implication of 'teacher behaviours being key to educational effectiveness' (p. 231) is that it is a necessity to consider both how teacher practice might be changed, and how the nature of effective teacher practice could be determined. Other researchers have asserted the importance of establishing a strong understanding of what constitutes effective practice before professional learning can be

addressed. There is general rejection of the idea that such an understanding already exists, and a view that some widespread perceptions may actually be incorrect (Coe et al., 2014). The CESE report (2014) observed that efforts to improve student outcomes may be 'hampered by a lack of clear, reliable and accessible evidence about what really works in classrooms' (p. 2). This has implications at two points of influence in the development of teacher practice: the first for those institutions responsible for initial teacher training; and the second for school systems and individual schools as they implement processes to upskill their teachers. The public discourse on explicit teaching can best be understood in terms of a debate concerning the appropriate prescription for the teacher skill set that will most likely produce the desired improvements in student learning outcomes.

The discourse raises questions about existing teacher training practices, exemplified by Rowe's (2006) view that constructivism is commonly misrepresented in teacher training, with adverse consequences for the development of effective explicit teaching practices. This view of the misapplication of constructivism has been endorsed by Clark, Kirschner and Sweller (2012), who referred to the 'constructivist teaching fallacy' (p. 8) promoted by teacher educators and presented evidence of explicit teaching strategies that work. Jensen's (2014) description of school-based professional learning in schools that had achieved 'turnaround' (p. 5) supports Goss and Sonnemann's (2014) assertion that 'teachers must first know what strategies and approaches work best in the classroom' (p. 3).

In the course of addressing the performance of classroom teachers, a third element should be considered fundamental to the knowledge base that is necessary to inform a professional learning intervention. In addition to understanding the nature of best classroom practice and the conditions that promote teacher learning, the third element, an understanding of what teacher practice currently looks like in the classroom, provides a basis for the refinement of professional learning interventions.

Muijs et al. (2014, p.19) presented a five step process, their *Teacher Enquiry and Knowledge building Cycle,* which addressed in order:

1. The knowledge and skills that students need to achieve goals;
2. The knowledge and skills teachers need to meet those needs;
3. The deepening and refinement of professional knowledge and skills;
4. The engagement of students in the new learning experience; and
5. The assessment of changed actions in terms of student outcomes.

In relation to the second item, they observed that 'this kind of analysis usually requires evidence of teachers' existing competencies and the assistance of someone with specific expertise in the particular area of inquiry' (2014, p. 247).

In practical terms this study has sought to present explicit teaching in its fundamental component parts (the 13 characteristics) so that a preliminary analysis of teacher practice can advise any decisions made about instructional interventions with teachers. This applies at a number of levels, from within the school to across the system. The capacity to facilitate comparison of individuals and cohorts is an essential aspect of the construct. The conceptualisation of explicit teaching as a framework, featuring a set of practices, provides a foundation for further investigation into that form of explicit teaching which most effectively influences student learning.

What about Relevance?

In the introduction to this study the uncertainty about teacher classroom performance and the certainty about the declining performance of Australian students (Thomson et al., 2016), at least in the public perception, were discussed. Schmoker's contention that the 'most well-known, incontestably essential practices' didn't match 'the reality of most classrooms' (2006, p. 2) was cited as an example of the critical view taken of classroom practice both abroad and in Australia. Closer to the present, variation in student learning even within

individual schools has been noted (Hattie, 2015; OECD, 2010), as has Hattie's (2015) view that the most important cause is 'variability in the effectiveness of teachers' (p. 1).

Donnelly's (2015) comments imply that the perspective represented by Schmoker is still relevant. In response to the NSW Education Department report, *What works best: Evidence-based practices to help improve NSW student performance* (CESE, 2014), a highly informative source for the generation of this study's view of explicit teaching, Donnelly (2015) wrote:

> WHO would have thought? Based on research detailed in a recent report entitled *What Works Best*, the NSW Education Department and Education Minister Adrian Piccoli has identified what constitutes effective classroom teaching and learning. … After years of often fruitless controversy and debate about the impact of education fads such as open classrooms, discovery learning and constructivism, where children take control of their own learning, it appears the tide has finally turned. Take the example of open planned classrooms, increasingly popular in primary schools, where children are free to move around and teachers 'facilitate' instead of direct the class from the front of the room (p. 1).

Jensen (2014), reporting on behalf of the Grattan Institute, described the strategies of Australian schools that had 'turned around' low performance. The introduction of explicit teaching methods strongly featured as the key instructional component of reform. These illustrations serve to confirm the relevance of this study's focus: concerns about student learning outcomes, the importance of the classroom teacher's role, the need for accurate information about teacher classroom practice, and the need for explicit teaching.

Anstey's (1993a) identification of a number of distinct pedagogies in the nineties, and Donnelly's (2015) recent suggestion that the tide is turning, with illustrations of pedagogies less esteemed than explicit teaching, might reasonably be taken to suggest that this study

would identify participants who demonstrated both explicit and non-explicit teaching pedagogies, but on the contrary, all twelve participants were identified as primarily demonstrating the characteristics of an explicit teaching pedagogy.

The comparison of individual participants found that the majority of explicit teaching characteristics were present in the practice of all participants, at least at a medium level of alignment. There was a degree of uniqueness in each participant profile, and that uniqueness has been discussed with respect to the results for the second research question and the consideration of the individual characteristics of explicit teaching.

The Explicit Teaching Construct

The first research question, *How can explicit teaching practices in literacy lessons of primary school teachers be described?* can be rephrased to ask whether explicit teaching practice, as exemplified by primary school teachers, can be represented by a set of operationally defined teacher behaviours that are discrete and that comprehensively represent all relevant behaviours. Can such operationally defined behaviours then be described in a way that captures variations in individual practice and allows the data to be transformed for the purposes of analysis? Further, can that description reflect the implementation of those behaviours whose positive effect on learning outcomes has been established from a sound evidence base? The capture of this dimension of a behaviour is clearly relevant where there is evidence that it has a positive effect on student learning when implemented in a specific way and may, in some cases, have a negative effect if implemented another way.

The practical answer to the first research question rests on successfully answering the second and third questions, comparing individual and group practices. The account of the development of the Explicit Teaching Construct is part of an appropriate answer, the remaining part being the methodology employed in the harvest of data.

It may be asked whether any of the lists of characteristics presented in the literature fulfil the same requirement. Was it really necessary to generate another list? Two lists have been presented as characteristic of explicit instruction, those of Anstey (1998) and Archer and Hughes (2011). Other lists either purport to represent a set of evidence-based best practices (Creemers & Kyriakides, 2006; Rosenshine, 2012), provide a checklist for the evaluation of teacher clarity (Cruikshank, 1985; Simonds, 1997) or are drawn from general descriptions of explicit teaching (CESE, 2014; Hempenstall & Buckingham, 2016). No one list was considered sufficiently inclusive for the purposes of the study.

A number of instruments have been developed in association with an ongoing interest in the role of classroom dialogue. A developing consensus on the forms of dialogue that are productive (Alexander, 2001; 2008; Mercer, 2000) created a demand for an instrument that would provide insights into the dialogue between teachers and students, and between students themselves, that co-constructs meaning and inter-subjectivity. Munn's Engaging Messages (2007) provided one such approach; however, of particular significance has been the development of the Cam-UNAM Scheme for Educational Dialogue Analysis (SEDA), a coding system for analysing classroom dialogue across educational contexts. The capacity of the approach to provide a fine-grained systematic analysis of participant interactions has been positively evaluated (Hennessy et al., 2016). Similarly, the derivative approach, Teacher Scheme for Educational Dialogue Analysis (T-SEDA), designed for use by teachers to promote productive dialogue in their classrooms, has also received positive reports (Vrikki et al., 2018). Nevertheless, while these instruments can indicate the achievement of dialogic teaching, or preferably dialogic teaching and learning (Hennessey et al.), this only represents a small part of an approach to explicit teaching. The instruments have a direct relevance to a minority of characteristics including Questioning, Student Dialogue, Feedback and Knowledge; and some implications for other characteristics such as process, context and

structure. For the purposes of this study a broader and more inclusive approach was needed to match the concept of explicit teaching evident in the prevailing public discourse.

The process followed for the generation of the set of characteristics for the Explicit Teaching Construct was in three parts. First the various explanations of explicit teaching were considered in order to create a touchstone by which to test individual characteristics. Definitions provided by Hattie and Yates (2014), and Luke (2013) offered a combination of breadth and specificity suitable for encapsulating the concept of explicit teaching. They concluded that this approach was teacher-centred, and featured transparency for students, clear goals and outcomes, clearly defined knowledge and skills, and teacher-directed interaction. Second, the characteristics were considered for how well they sat within the body of learning theory that explains the relevance of the explicit teaching approach. At the heart of that theory is the explanation by Vygotsky of how we learn, and in particular of the role of scaffolding (Husband & Pearce, 2012), which is largely provided by the teacher, but not exclusively given other sources of scaffolding in the classroom such as students (Kim & Hannafin, 2011). Complementing Vygotsky's explanation of the learning process is evidence from the cognitive sciences that human hardwiring predisposes children to learn from adults (Hattie & Yates, 2014; Kirschner et al., 2006). Third, any particular characteristic should be substantially acknowledged in the relevant literature and be in harmony with the principles defining explicit teaching and explaining the learning process, prominent features being teacher direction, transparency for the student, and scaffolded learning. This acknowledgement was not always evident in the lists of characteristics that were generated from the literature (Chapter 2, The Explicit Teaching Characteristic Observation Set). Compelling cases for inclusion of some characteristics that were not always strongly represented in the overview were drawn from deeper discussions in the source literature, and from more narrowly focused literature often addressing a particular characteristic or strategy.

A strong example of such a characteristic is Student Dialogue, merely hinted at in the item list developed from the work of Creemers and Kyriakides (2006), but detailed in Alexander (2017), Husband and Pearce (2012), Kim and Hannafin (2012)), Rosenshine (2012) and Wilkinson, Murphy and Binici (2015).

The potential list of characteristics, compiled from seven sources, represents an admixture of strategies, tactics and minor tactics: a synthesis of elements drawn from the lists and from a deeper consideration of the associated literature resulting in 13 characteristics Anstey (1998) and Archer and Hughes (2011) presented strategies, such as lessons being functional and goal-directed (Anstey) and lesson designs addressing organisation and focus (Archer & Hughes). Anstey (1993a) focussed on the interactions between lesson structure, teacher talk and materials in her investigation of conditions that support metacognitive learning and identified key characteristics of explicit teaching in subsequent work (1998). Archer and Hughes presented a more comprehensive framework of characteristics/strategies which is representative of the concept of explicit teaching that appears in much of the contemporary public discourse. However, for the operationalisation of this study, some regrouping of characteristics thematically was necessary. For example, the content of Archer and Hughes' item 7, amalgamates several strategies: 'provide step-by-step demonstrations—model, clarify and share thinking process aloud' (Archer & Hughes, 2011, p. 2). These were redistributed, with 'thinking aloud' included in metacognition, which is deemed significant enough to warrant being designated a characteristic in its own right, and the other strategies being components of an extended view of structure.

For the purpose of describing explicit teaching practice, the inclusion of characteristics identifying structure according to phases and describing the presence of the GRR model emerged as a priority (see Explicit Teaching and Lesson Structure). While a broad consensus in the description of a set of phases appears in the literature regarding the content and order

of phases, a unified system of labelling was developed for the purposes of this study. While different terms are used in this study to describe the phases, depending on the source, the essential meanings have been preserved.

The literature consistently referenced the evidence base, in many instances providing details of specific strategies within a characteristic that were associated with higher student achievement. Discrete elements of characteristics that could enhance participant description were identified. For example, the literature described effective questioning as frequent, containing a balanced mix of high and low-order questions, and following a Socratic approach (Creemers & Kyriakides, 2006; Hattie & Yates, 2014; Husband & Pearce, 2012; Rosenshine, 2012). The inclusion of such detail facilitated the process of making distinctions between participants' practice.

The construct was examined for comprehensiveness with respect to the literature. The collection of data from observational notes and repeated reviews of the sound recordings was conducted primarily to identify those teacher strategies associated with each of the explicit teaching characteristics. The question arises for the researcher when analysing the raw data, whether the construct is comprehensive with respect to capturing all the teacher behaviours that may fall within the working definition of explicit teaching practice. Many teacher behaviours exhibiting explicitness and featuring prominently in the conduct of lessons were directed towards classroom behaviour management, and teacher–student interaction was observed at times to include many verbal communications and gestures that addressed the on-task and social behaviours of students. These teacher behaviours also exhibited a range of strategies and tactics, often in common with instruction, that provided clarity for students. However, this aspect of the teacher's role was not included in the construct. In common with the consensus in much of the literature, classroom management was considered a distinct and separate aspect of a teacher's role (CESE, 2014; Coe et al., 2014).

How was Explicit Teacher Practice Described?

The key to answering research question 1, *How can explicit teaching practices in literacy lessons of primary school teachers be described?* is the Explicit Teaching Construct. As discussed above, its relevance could be judged by the way its application facilitated the comparisons required to answer research questions 2 and 3. If it was relevant, the resulting descriptions would be inclusive of relevant behaviours, have the power to discriminate between the practices of individuals, and be reliable.

The set of operationally defined teacher behaviours, comprising the characteristics in the Explicit Teaching Construct, was used to generate participant profiles and represented another point of reference for understanding the concept of explicit teaching. The organisation of characteristics so that each offered three levels of alignment with participant practice was fundamental to the quantification of the qualitative data.

In generating a descriptive tool for explicit teaching practice, a balance between practicality, comprehensiveness and acuity was sought. The tool was designed to discriminate between teachers exhibiting a range of explicit teaching practices, from few to many. Teachers committed to a constructivist (discovery learning) approach might be expected to exhibit few explicit teaching practices, and in the case of this study, where all participants exhibited multiple characteristics, the construct proved sufficiently discriminating not only to highlight similarities but to draw out significant variations in practice, including the use of particular strategies which according to the literature may have a direct bearing on student outcomes.

Given these results it is felt that the observational instrument adequately fulfilled its purpose. Alternative approaches include interviews or questionnaires, both of which

presented the challenge of a less objective process involving self-evaluation and reporting in an area where there exists some confusion regarding the meaning of the concepts involved (Hattie, 2014). Those approaches were considered unsuitable for the primary purposes of this study concerning the description of teacher practices, although interviews were used to collect demographic information and to check the validity of observations.

More intrusive approaches requiring close monitoring of student response may have provided valuable data about teacher clarity or the way the level of instruction matched student need. However, the clarity promoting teacher behaviours are the product of extensive surveys of student opinion (see Teacher Clarity). Having the teacher wired, to produce a clearer recording of interactions with individual students, might have provided valuable information about questions to and from students, and provided more detailed feedback data. At a practical level such an approach might well have increased the difficulty of recruiting participants, and of managing sensitive issues associated with the use of student voice. The difficulty in recruitment has been reported in the Methodology chapter and should not be understated. Anstey (1993a) recruited participants with whom she was familiar through professional development activity. The future utility of the processes developed in this study depends on minimising intrusiveness and maximising manageability.

Characteristics Reviewed

With the participant cohort clustering towards the high end of alignment of practice with the set of characteristics, the question must be asked whether the construct produced sufficiently detailed data. Certainly the observations established high levels of alignment for several characteristics, including Monitoring, Focus and Curriculum followed by Clarity, Structure and GRR. Conceivably the lower levels of alignment for these characteristics might have appeared more often in a study of a different sample.

It is clear from the literature reviewed in Chapter 2 that there are many levels at which the aspects of an Explicit Teaching Construct can be treated, from overview to in-depth examination. A number of factors influenced the design of this study. For practical purposes the data collection was selective, however, a necessary requirement was that it facilitate the differentiation of individual participants' practices. Data transformation enabled the description of participant practice in terms of the key features of each characteristic, as presented in Chapter 4.

Structure. With a need to balance expedience against accuracy, the idea of a 'lesson' presented a suitable balance, notwithstanding the reality that learning sequences often spanned several lessons, limiting access to the full range of data about the use of explicit teaching phases. Making three observations provided insights into how structures might vary across lessons. There were indications that at times the sequence of phases spanned multiple lessons usually involving independent practice and learning transfer which, in some instances, appear to have been spaced over a lengthy period. Data about lesson context, gathered through teacher interviews, partly compensated for this limitation as the teachers explained the connectedness of learning over a series of lessons.

The phase descriptors drawn from the literature (Table 5) matched the structures observed in the lessons, enabling the collection of data pertaining to duration and sequence that could be presented in graphs (see Figures 2–15). Statistical analysis confirmed a strong commonality of practice across the cohort, with ten participants found to have achieved high alignment, and two medium alignment (Table 35).

GRR. Closely related to the preceding characteristic, GRR represents the process of moving students from high dependence to independence in their learning. The process was observable in a variety of time frames which included whole lessons, where the core phases, Modelling, Guided Practice and Independent Practice, proceeded in order. There were shorter

segments within the lesson where a skill was introduced, practised and applied. On occasion it was evident that this process spanned several lessons. This characteristic, GRR, was found to display an identical pattern of alignment to Structure, with the irregularities noted regarding Structure influencing an assignment of a medium-level alignment for two participants.

Structure and GRR are presented as discrete characteristics in the Explicit Teaching Construct to allow attention to be given to the full range of phases involved with an explicit teaching model and any associated variations in duration and sequence to be considered. Treated separately, the core GRR phases provide evidence of the transfer of responsibility to the student through the gradual removal of scaffolding.

Context. Contextual information was strongly represented in the Focus phase of lessons, where connections to other learning, and the usefulness and significance of the learning, were often presented. Connections to other learning were also made in the Conclusion phase and, less frequently, contextual information was presented in other phases, including Modelling and Review. Contextual information was also provided to individual students as the teacher monitored and guided them through various phases.

The transmission of contextual information to the whole class and to groups of students was highly accessible to the observer. Teachers' conversations with individual students could not be as comprehensively captured, as they were affected by the distance of the conversation from the observer and the level of classroom work noise. However, in common with characteristics that involved teacher conversation with individual students, including Monitoring, Feedback and Questioning, the approach to collecting observational data yielded a representative sample of individual teacher–student conversations.

The evidence for Context was clear and in no need of interpretation, with eight participants routinely relating learning connections and the purposes of the learning,

achieving high alignments with this characteristic. In four other instances, markedly less contextual information was presented, and alignments were at a lower level. In one instance contextual information emerged incidentally through the course of the lesson, but this appeared to be an intentional teacher strategy.

Process. The characteristic Process concerns the teacher providing students with clear information about how they should go about their learning. Giving students an understanding of success criteria, or in other words what it will look like when they have successfully completed their learning tasks, is a particularly important aspect of Process that is associated with positive student learning outcomes. Clearly specified success criteria not only provide certainty for students as they learn, but also become important reference points for feedback conversations. Sometimes the judicious use of a Reporting phase saw teacher feedback clarifying success criteria while work was still in progress, and in other instances success criteria were strongly inferred in explanations of the context of the work. Those providing success criteria generally did so in suitably clear terms during the Modelling or Guided Practice phases.

Half the participants were aligned at medium or low alignment levels on the Process characteristic, and with one exception, did not clearly specify success criteria. After Student dialogue, which was the characteristic least implemented at a high level, Process, along with Metacognition and Questioning, were the characteristics implemented second least at a high level.

The provision of clear explanations of the learning tasks that students were required to carry out was an important contributor to overall Clarity, and also an influence in maintaining Focus. The evidence of Process was easily discernible as the teacher provided information to the class group.

Monitoring. Monitoring was rigorously carried out by all participants, especially with

respect to supervision during deskwork. Some questioning clearly served monitoring purposes on a number of occasions, and was linked to teacher decisions to adjust instruction in response. Less visible were occasions when the teacher adjusted instruction in response to the discovery, through questioning, of a deficiency in prior knowledge or in understanding the current instruction.

Monitoring that took into account all students, using strategies similar to those suggested by Rosenshine (2012) that elicit responses from all students in the class (see Chapter 2, Questioning), was rarely evident. What was evident was the general practice reported in the literature, of taking answers from volunteers, a form of monitoring limited by the possibility that up to 40% of students might be disengaged (Goss & Sonnemann, 2014; Yair, 2000) and disguising it through procedural display (Nuthall, 2005). Countering that concern was the evidence of highly efficient student engagement with assigned tasks in the lessons of all twelve teachers, which was also evidence of clarity. In answer to the question regarding suitable levels of discrimination, the obvious and visible monitoring behaviours are accounted for, and should a larger data set confirm the high level of implementation of this characteristic, there may be a case for revision, nevertheless, a consistent approach to the data collection yielded information enabling the formation of individualised profiles. All participants achieved a high level of alignment with this characteristic. Questioning for understanding and close supervision of students as they worked were features of the practice of all participants. Applied to a larger sample, there may be cause to review the alignment levels to recognise inclusive questioning strategies as opposed to reliance on volunteered answers, and sophisticated approaches to teacher self-evaluation.

Feedback. Feedback is a characteristic that offers the promise of significant influence on student outcomes (Hattie, 2009). The Explicit Teaching Construct describes a specific

form of Feedback that has been linked with high student gains: that form addressing the process and SRL levels, specifying the successes and correcting the errors.

The most significant form of feedback was considered to be that given to an individual student by the teacher. Observational data was gathered from teacher feedback to groups, to the whole class, to individuals in response to answers to questions, and to individuals engaged in desk work in both guided and independent practice. This type of teacher conversation may represent a considerable volume of the teacher classroom talk, however a suitably representative data sample has been used in profiling.

While seven participants achieved high levels of alignment with the Feedback characteristic, the remainder did not direct corrective feedback to the process or SRL levels, tending to focus at the task level and indicating correct or incorrect understanding without providing specific advice about improving process, acknowledging good process, or referring to strategies students could use to evaluate their own learning choices.

Four participants achieved alignment at a medium level and one at a low level. The result indicates that Feedback is a characteristic that is quite variable in teacher practice.

Knowledge. This characteristic concerned two aspects of the teacher's role: the lead role, described by Hattie and Yates (2014), when children receive knowledge directly from adults, characterised in the classroom by the teacher's use of declaratives; and the use in learning of cognition and metacognition and the three types of knowledge, propositional, procedural and transactional.

Teacher talk, including statements, questions and feedback, provided data about declarative use, cognition and metacognition. The nature of the learning activities in which the class was engaged provided data about the type of knowledge being addressed.

The directive role of the teacher was illustrated by the teacher generally spending the majority of class time, averaging sixty percent, interacting with the class group and featuring

declarative statements in the teacher talk. All participants used declaratives. Cognition was clearly illustrated through the samples of declaratives and questions recorded for each participant. Metacognition was not evident at a high level in the practice of the majority of participants and is addressed in more detail in the next section.

The three types of knowledge were not always represented in a single lesson, but contextual comments indicated that all three types of knowledge were present over a series of lessons, sometimes with a bias towards propositional knowledge in the early stages and conditional knowledge later on.

Judgements about levels of alignment (see Appendix H: Characteristic Alignment Framework) were made on the basis of how comprehensively the features of this characteristic appeared in practice. Six participants achieved a high level of alignment with the characteristic while the remainder achieved a medium level of alignment.

Metacognition. All participants provided some evidence of Metacognition in their teaching approaches, although seven did not embed 'think aloud' and SRL strategies in their teaching. After Student Dialogue, Metacognition was one of three characteristics least implemented at a high level across the cohort. Where Metacognition was embedded in the teaching approach, cognitive processes were regularly made visible through the 'think aloud' strategy, with either the teacher modelling by speaking out loud the questions asked and the choices made in the process of solving a problem, or students being asked to share their thinking out loud when problem-solving. SRL strategies were already in place, and the teacher prompted and reminded students to draw on those strategies. In some instances when information about learning processes was introduced to students, SRL strategies (planning, checking and consulting resources) were specified.

While a variation of this study could have focused on evidence of SRL in students' approaches to their learning, the focus remained on teacher behaviours, consistent with the

intent of the study, and yielded a clear picture of a range of participant practices relating to this characteristic.

Questioning. Fifty percent of the participants achieved high alignment with Questioning, their practices featuring a high frequency of questions with a mixture of both high and low order, and often a Socratic approach. Questioning served a variety of purposes, including monitoring, introducing knowledge into the discussion, and prompting higher-order thinking involving analysis, synthesis and evaluation. Other participants asked fewer questions, often of a limited type and some focused deliberately on low-order recall questions, often for the purpose of monitoring student learning.

Generally the categorisation of questions was straightforward, and based on Bloom's Taxonomy of questioning (Bloom's Taxonomy, n.d.), both the original and a revised version (Anderson & Krathwohl, 2001). For a comparison of both versions see Appendix J: Bloom's Taxonomy Levels of Questions: Original and Revised Versions Compared. Questions were often aligned with the lower (1 and 2) or higher (5 and 6) levels and therefore easily classified. Those levels were directly associated with either low- or high-order types of questions. At times the context of the question indicated an order of difficulty either higher or lower than those covered in the taxonomy, for example, comprehension questions required varying degrees of inference, from low to high.

In cases where high levels of inference were required, the questions were designated medium- or high-order. The designation of mid-level questions was also influenced by context, but questions requiring analysis were considered to be high-order and those concerning application were considered medium- or high-order.

In this study observation was supplemented by sound recording, used to identify teacher questions directed to the class or to individual students in whole-class discussion. Necessarily, questions addressed to individual students were not included in the data, but

rather those questions addressed to the class or a group. The discussion of questioning frequency was relative to the cohort data. Data from other sources, discussed below, was not useful for direct comparison.

Some general reviews of teacher questioning practices in other studies reported hourly or daily rates, and included questions to individual students. Brualdi (1998) reported 200–300 questions a day, translating to one question every 1.0 to 1.5 minutes. Hardman, Smith and Wall (2003) reported a rate of one question every 0.9 minutes; other sources report rates up to 400 per day (Department of Education, NSW, 2015) with 30-60% being procedural, that is, asking students, often individually, whether they are ready to start, have finished, have specific resources, and so on. The high rates of questioning reported in that study include questions addressed to individual students while monitoring desk work. The more focused data generated in this study (see Table 37) is therefore not directly comparable to any of these rates.

When considering the rather varied rates of questioning reported, the types of question asked should be borne in mind. Kerry (cited in TES, 2017) reported only 4% of questions being higher-order, and Wragg (cited in TES, 2017), in a survey of primary school classrooms, reported only 8% of questions were of higher order and that lower-order questions were associated with behaviour management. Myhill's study (2006) following the NLS and NNS interventions in the United Kingdom also highlighted a relatively low incidence of questions related to higher order thinking, with 17% of questions classified as speculative. In this study, many of the questions that were observed but not included in the data, being addressed to individual students during desk work, were procedural and of a low order. Nevertheless, given the low rates of higher-order questions generally reported by Kerry and Wragg, it appears that the bias towards high-order questions in three high SES classrooms and a balance of high- and low-order questions in five other classrooms, including

both high and low SES classrooms, indicate an atypical presence of higher-order questions among the teachers in this study.

The questions presented to illustrate individual practice in the participant profiles in Chapter 4 suggest that higher-order questioning tends to be more time-consuming than lower-order questioning, inviting more complex responses. While the questioning data proves useful for comparing individuals and SES cohorts in the context of this study, its limitations and the possibilities for further focused research are acknowledged.

Student Dialogue. Student dialogue, meaning student to student dialogue, was the characteristic least in evidence in participant practice. While half the participants achieved a high level of alignment for this characteristic, it was not evident at all in the practice of a third of the cohort. Although it is uncommon in summary lists of explicit teaching characteristics, Student dialogue is acknowledged in this study as a powerful tool both for creating the transparency for students that is fundamental to explicit teaching, and for introducing peers as a source of scaffolding; however, those positive learning outcomes are conditional upon Student dialogue being rigorously planned and structured.

High-level implementation includes structures that ensure students are on task and involved as both speakers and listeners, so that an exchange of ideas may take place. In the case of two participants there was evidence of some cooperative student work with limited opportunities for meaningful dialogue, but nowhere was there evidence of student questions being referred to the student group, a strategy discussed in Chapter 2, Questioning.

Student dialogue was clearly evident to the observer among student groupings within the classroom, often involving a transition from different settings where the teacher or materials might have been the previous focus. The characteristic, Student Dialogue, also featured teacher instructions and explanations addressed to the class group as part of the teacher role in structuring student dialogue.

Clarity. While Clarity was identified as critical in an explicit teaching approach, the collection of observational data for this element relied on inference. Teacher clarity is often judged on the basis of student questionnaires (Chesebro & McCroskey, 2001), but in this study the focus remained on teacher behaviours first, and only to some extent on the response of students as a group to those teacher behaviours.

In this case two sets of indicators were used to assess the quality of clarity achieved. First, the literature (see Chapter 2, Strategies that promote clarity) identifies a set of teacher behaviours that promoted clarity. These are usually directed towards the class group and were highly visible in the classroom. Second, the student response to teacher instruction can be an indicator of teacher clarity, as can a curriculum appropriate to student needs. The high levels of student on-task behaviour, the ease with which students engage with the work, and the effectiveness of teacher support in meeting the needs of students seeking assistance suggest a high level of clarity.

While clarity may be argued as prerequisite to students being able to carry out the tasks required of them by the teacher, students not responding positively to teacher instruction may be an indicator of a number things, including a lack of clarity, behavioural factors, or even fatigue.

Both the teacher behaviours and the student responses associated with clarity were in evidence in the observations. Eleven participants were highly aligned with this characteristic. The remaining participant achieved a medium level of alignment, demonstrating a more limited range of strategies. Teacher behaviours that promoted clarity were those that provided scaffolding for student learning (see Hattie 2012 on, p, 70).

Focus. Focus was one of three characteristics with which all participants were fully aligned. Does this outcome reflect the design of the construct, the definition of the characteristics, or a uniformity of practice among the participants? Corroboration of

uniformity of practice is found in the information about context, purpose and learning connections, contained in the descriptions of individual teacher practice in Chapter 4, Section 1, Describing Teacher Practice, where evidence is provided that focus was established and maintained. Further evidence of focus is based on the observation that the participant cohort universally drew upon a sequenced curriculum, in compliance with the Australian Curriculum. Furthermore, all participants presented strongly connected learning sequences in which each learning focus was identified within a larger relevant concept, and maintained a strong focus through the course of each lesson with students engaged in logically sequenced and relevant learning activities.

Curriculum. The highly aligned characteristic, Curriculum, was clearly evident, but teacher adjustments made to match the subject matter to the specific student level were not always obvious to the observer unless monitoring for that purpose was in place or differentiated tasks to meet different levels of student ability were evident. They systematically addressed skills and knowledge drawn from the mandated Australian Curriculum.

All participants worked within the constraints of the Tasmanian public education system (DoE) and the Commonwealth Education system. A high level of consistency was evident in a systematic approach to implementing the Australian Curriculum. Correspondence was also evident between the literacy strands addressed in class and those targeted in annual NAPLAN testing.

A number of indicators provided evidence that learning was pitched at a suitable level for students. For example, the high levels of student on-task behaviour and ease with which students engaged with their work suggested they had suitable entry-level understanding. Furthermore, a small minority of students appeared to seek guidance, and when they did, the teacher assisted them to engage with tasks with relative ease, in as much as the clarification

or direction given by the teacher usually appeared sufficient for the students to re-engage with their work.

Those aspects valued in curriculum organisation are closely related to the notion of scaffolding discussed in the section, Teaching and Learning Theory. A sequential curriculum suggests an order of increasing challenge, the point at which the student is ideally engaged, matching the student's zone of proximal development. Sound curriculum practice may enhance clarity and focus for the student. While a high level of homogeneity was apparent in the application of this characteristic in participant practice, with a resulting high level of alignment, any question as to whether its framing in the Explicit Teaching Construct limits its value in describing teacher practice may not be satisfactorily answered until it is applied to a more diverse sample.

Construct Suitability to Lessons Observed

As was the case in the Anstey study (1993a), some prescription was necessary about the type of observation required. For this study the requirement was for three observations of lessons targeting an aspect of literacy. While a preference was expressed for lessons of 45–60 minutes, the actual lessons observed ran for 34 to 60 minutes.

The choice of lessons for observation had the potential to misrepresent the reality of classroom learning unless there was an acknowledgement of the other organisational units that typically occur in a literacy block in primary schools. The lessons observed either represented the whole activity of a literacy block, or one of a number of activities within a block. Generally, activities preceding or following the lesson were regularly scheduled independent practice such as reading, spelling, building word knowledge, writing sessions or targeted instructional sessions. The observations were negotiated on the understanding that typical literacy lessons would be observed and that a new skill or concept would be

presented. The data collected represents only a portion of the teacher behaviours directed towards literacy over the week or at times the day of each observation.

Notwithstanding these qualifications, the outcomes from the application of the construct provide some vindication of the choices made, remembering that practicality was an important design consideration. The importance of the Explicit Teaching Construct lies in its comprehensiveness, particularly as an expression of a dominant theory of teaching and learning (Husband & Pearce, 2012). The Explicit Instruction Characteristic Set and the Characteristic Alignment Framework facilitated the generation of individual teacher profiles containing information about characteristics and associated strategies. Particular attention was given to strategies with an evidence base suggesting high levels of effectiveness.

Individual Teacher Similarities and Differences

In the process of answering the second research question, *What are the similarities and differences in explicit teaching practice evident in the study sample?* it became clear that the most prominent result from the comparison of individual participants was the high alignment of individual practices with the characteristics of the Explicit Teaching Construct. Essentially the teacher participants exhibited a strong explicit teaching pedagogy. Generally, participants organised their teaching in the clearly distinguishable phases, described under the characteristic Structure. The data associated with phase duration (see Lesson structure in participant practice.) confirms a congruence of practice across the cohort. Teachers modelled learning, worked with students to guide their practice, and then monitored their independent practice, giving feedback. They generally asked questions frequently and gave a many examples. They shared the purpose of the learning and related it to other learning, particularly the larger concepts that were the objects of the learning. They systematically addressed skills and knowledge drawn from the mandated curriculum.

There was no evidence of the practices that concerned Donnelly (2015), specifically constructivism/discovery learning or children setting their own educational agenda and choosing their own activities. The directive role of the teacher was illustrated by the teacher generally spending the majority of class time, averaging 60%, interacting with the class group and featuring declarative statements in the teacher talk.

The concern expressed by Martin and Rothery (1988, cited in Anstey, 1998) that progressive education had failed to be precise about the types of teacher–student interaction that supported learning, appears to have been addressed, with every indication that the intentions described in Chapter 1, to promote explicit instruction in the Education Department of Tasmania, have been realised, at least as far as the cohort described in this study was concerned. The results of this study reveal the high alignment of practice with the very clear teacher–student interaction demanded by an explicit teaching approach. The central issue has shifted from being the relative merits of explicit teaching as opposed to constructivism/discovery learning, or teacher-centred as oppose to student-centred classrooms, and has moved to questions of the quality of the implementation of an explicit teaching approach. The effectiveness of explicit teaching has been argued (Archer & Hughes, 2011; Clark et al., 2012; Hattie, 2012), but a body of evidence also specifies the nature of particular characteristics within the construct that have a positive impact. Hattie's (2012) meta-analysis provides details of promising strategies, including metacognition, feedback, success criteria, questioning and the use of numerous examples.

Should the level of implementation of explicit teaching reported here be expected to be effective in producing positive learning outcomes for students? The most informed answer may be 'not necessarily'. In this study's description of the levels of alignment, level 3 generally required the characteristic to be evident in the participant's practice in a form that matched evidence-based best practice. For example, feedback had to address the process and

SRL levels, specifying successes and correcting errors. Success criteria had to be clearly specified and not only provide certainty for students as they learned but become important reference points for feedback conversations.

In terms of the study findings (Table 35), 42% of the participants did not clearly specify success criteria; 50% did not ask a balance of high- and low-order questions, and the same proportion did not embed 'think aloud' or SRL strategies in their teaching. Fifty-eight percent of participants provided no evidence of at least three of the seven High-impact strategies in their practice. Only 25% utilised all the High-impact strategies. While all participants appeared to take an explicit teaching approach, considerable variation was evident in this regard. The difference in standard deviations reported for the cohort alignment with the Explicit Teaching Characteristics (SD = 2.65) and the cohort high-impact strategy scores (SD = 9.75) is evidence of the variation in the cohort's use of highly effective strategies.

In this study the observational data were transformed into quantitative data which gave information about the group, the individuals, and their characteristics. There are clear implications for professional learning and for increasing understanding of the effectiveness of explicit teaching. The data provide the basis for the design of specific and targeted professional learning interventions. The data itself, in the form of transcriptions of classroom interactions may form the basis for a collaborative analytic model of professional learning (Edwards-Groves, 1998), frequently a feature of dialogic classroom studies (Alexander, 2017). The Construct may also serve as a checklist for walk-throughs, a practice in which a supervisor such as a principal might observe a teacher in class (Dempster et al. 2012).

Given a sufficiently large sample of a similar cohort, involving numbers of participants beyond the scope of this study, more viable data for statistical comparison may be generated to determine the effects of patterns of alignment of explicit teaching characteristics on learning outcomes. This study, as an initiatory study, has provided a platform for deeper

exploration of fundamental questions about how, precisely, explicit teaching influences student outcomes. These fundamental questions concern the various influences on outcomes that might be associated with a specific aggregation of sound explicit teaching practices, high-impact evidence based strategies, or combinations of characteristics and strategies. Of particular value would be the identification of the tipping points, where positive outcomes begin or end. These may emerge as a collection of core strategies and perhaps parameters such as frequency and duration common to highly effective teachers.

Comparing Explicit Teaching in High SES and Low SES Schools

The process of answering research question 3, *Are there differences in the explicit teaching of literacy in low SES and high SES primary school classrooms?* took a familiar path, with the uniformity of commitment to an explicit teaching pedagogy a prominent feature of both the cohorts being compared, the high SES school participants and the low SES school participants.

Small differences were apparent in a range of areas, including the total alignment scores and the alignment scores for individual characteristics. While the high SES cohort achieved slightly higher average scores in both these measures, statistical analysis produced no evidence of significance in the differences apart from a small degree of significance suggested by measures of effect size when applied to averages of individual characteristic alignment scores (Table 40). The largest differences in average scores for individual characteristics were for Questioning, Feedback and Knowledge. The high SES cohort returned higher scores. Questioning data (Table 37) pointed to some differences in the order of questions asked but indicated little difference in questioning rate and did not directly support the notion of a clearly differentiated experience of explicit teaching across the two cohorts.

An overview of explicit teaching structures confirmed general similarities between the two cohorts. All participants demonstrated a GRR model in operation through the sequencing of the relevant phases. In eleven of twelve cases the majority of class time was spent in phases that involved teacher interaction with the whole class, and a lesser proportion of class time was spent in independent practice. Although there was some variation in the length of the lessons being observed, a statistical comparison found no significant difference between the cohorts (Table 45).

A comparison of the SES cohorts' use of individual phases found little statistical difference. Measures of effect size produced no or small effects for the majority of phases, and a medium effect on the Focus and Modelling phases. With respect to the non-sequential phases, Reporting and Review, use of the Reporting phase was variable in both cohorts, the Review phase was not evident in the practice of fifty percent of the high SES participants, and where it was, it was generally shorter than in the low SES cohort. In this last case a very large size effect was evident for SES; however given the very small sample little significance can be attributed to it. Overall the high SES cohort spent marginally more time in phases that involved teachers in interaction with the whole class and marginally less time in the independent practice than the low SES cohort (see Comparison of phase duration for high and low SES school cohorts.).

The removal from the statistical analysis of one participant who demonstrated an atypical pattern for the Combined Teacher–Student Interactive phases and Independent Practice phase reversed the overall result reported above, with the low SES cohort now spending marginally more time in phases that involved teachers in interaction with the whole class and marginally less time in the independent practice than the high SES cohort (see Comparison of phase duration for high and low SES school cohorts.). This effect, from a minor manipulation of the data, is an indication that cohort differences in terms of phase

usage does not represent a major point of difference in students' experience of explicit teaching. It is also a caution that in a small sample one aberration can have a large impact.

In common with the investigation of the variations in individual practice, attention to detail revealed a more complex situation, as did the application of relevant applied statistical methods addressing effect sizes. Plotting participants' alignment scores against SES (Figure 18) and participants' use of high-impact strategy scores against SES (Figure 19)) produced three clear clusters: in the two highest places, two low SES school participants; in the four lowest places, the remaining low SES school participants; and in between, the six high SES school participants.

The mean alignment score for the low cluster of four low SES participants was markedly lower than the mean of the six high SES school participants, (M = 31.5 compared to M = 35.2). What did this mean in practice? On a scale that ranges from 13 for least alignment to 39 for maximum alignment, both means suggest high levels of explicit teaching practice, but the effect size resulting from the calculation of Hedge's *g* suggested a huge effect, that is, a category of effect that exceeds large (see Participant alignment clusters.). In other words, the effect of SES may be significant in the learning experience of students, or at least for approximately two thirds of the students represented in the low SES sample and belonging in the low ranking cluster. This conclusion is drawn with caution, given the small sample size which limits the reliability of the statistical analysis.

Again the deficit was found to relate to an absence of the specific high-impact forms of the characteristics previously discussed in relation to individual participant comparisons, specifically Feedback, Questioning and Metacognition, and the high-impact strategies, Success Criteria and Numerous Examples. Three participants in this low SES participant cluster showed no evidence of four of these five strategies in their practice and the remainder had no evidence of two of the strategies.

Can this mean that low SES students experience less explicit teaching than their high SES peers? The case has been made here that all the participants followed an explicit teaching approach to classroom teaching. This result certainly contrasts with the findings of Freebody, Ludwig and Gunn (1995) in their landmark study of the educational experience of low SES students, which found little evidence of explicit teaching.

The criteria governing the allocation of alignment levels largely included particular strategies in participant practice, such as corrective feedback and modelling, and measures of frequency, such as distinguishing between 'thinking aloud' being embedded in participant practice and sometimes featuring in it. The difference in explicit teaching experienced by low SES students in this study may be represented by their exposure to particular strategies either not often or not at all. From the evidence provided in the survey of the use of high-impact strategies, discussed above, it may be concluded that the strategies that are less evident in some low SES classrooms are likely to be the ones associated with the achievement of the high gains reported for explicit teaching.

The impact of this differential experience, as discussed previously, is a matter to be resolved through further research, however, on the basis of gainscores attributed to the individual strategies concerned (Hattie 2012), lower student outcomes for the low SES students would seem a reasonable hypothesis for future testing.

The bimodal distribution of the low SES cohort and the different experience of some strategies in the majority of low SES classrooms invite a range of questions relating to the likelihood that the results could be a product of chance in a small sample, or could relate to as yet unidentified aspects of low SES schools that influenced the CESE (2014) finding that low SES students experience less explicit teaching. Myhill's findings (2002, 2006) that classroom interaction is experienced differentially by gender and achievement group points to the

usefulness of a more detailed study of classroom dialogue, in view of the achievement differences between the SES cohorts (see Figure 1). Educational outcomes in literacy Figure 1) can be added to parental education and income as points of difference between the SES cohorts. In this study, some difference is evident in the teacher profiles of the respective SES cohorts. The low SES cohort tended towards having younger teachers, with 67% under 41 years of age compared with 67% over 40 years of age in the high SES cohort. The mean teaching experience of the low SES cohort was 8.5 years compared with the 21.8 years for the high SES cohort (see Table 7: Sample Profile: Participant Characteristics). A possible correspondence between lower learning outcomes and particular pedagogies presents as a highly relevant area for investigation, provided causal relationships can be established.

Variance of Characteristics between Individual Teachers

The findings that explicit teaching is the prevalent pedagogy but that variation is to be found in the detail of individual practice, particularly with respect to specific characteristics and some high-impact strategies, has some clear implications for professional learning, particularly with respect to strategies that need to be better understood by teachers.

A question that is highly relevant concerns the influences that resulted in the patterns of explicit teaching apparent in the study. How is it that all the participants bar one spent markedly more time in teacher–class interaction phases than in Independent Practice phases? In this case, the cohort averaged 60% of total time spent in teacher interaction with the whole class, precisely reflecting the findings of Hardman et al. (2003), who found in their survey that sixty percent of each lesson involved the teacher working with the whole class. How was it that so many characteristics were applied with relative consistency across the cohort and others were not? Goss and Sonnemann (2014) noted that up to 40% of Australian teachers report not having seen their peers teaching, and Hattie (2009) remarked on the invisibility of

teachers working behind closed classroom doors. What leads to the transmission of some elements of pedagogy across a community of teachers and not others?

The results of this study identified variation in the implementation of some characteristics across the cohort. Student Dialogue, although uncommon in summary lists of explicit teaching characteristics, has been acknowledged in this study as a powerful tool for both creating the transparency for students that is fundamental to explicit teaching, and also for introducing peers as a source of scaffolding. The caution is that the positive learning outcomes associated with the strategy appeared to occur only under rigorously planned and structured conditions. High-level implementation was evident in the practice of five participants; no evidence at all was found in the case of four participants. Among the remainder there was evidence of some cooperative student work with limited opportunities for meaningful dialogue (see Individual participants' explicit teaching practices: content). There was no evidence of student questions being referred to the student group, a strategy discussed in Chapter 2, Questioning.

Arguably more significant was the fact that among the most variably implemented characteristics were found to be some of the most effective strategies in terms of the evidence base for positive impact on student learning outcomes. Of those strategies least implemented at a high level were Process, Metacognition and Questioning. Making the purpose of learning clear was generally in evidence across the cohort, but providing students with a clear and precise idea of success criteria before they engaged with specific tasks was less common. Five participants regularly made cognitive processes transparent to their students by 'thinking aloud' and encouraged strategies for self-regulated learning (SRL) in a variety of ways including modelling, feedback, and other instruction. The seven other participants displayed far less rigorous approaches, being irregular in sharing 'thinking aloud', inviting students to 'think aloud' or encouraging an SRL strategy. Five participants featured a high frequency of

questions with a mixture of high and low-order questions and often used a Socratic approach. Questioning served a variety of purposes, including monitoring, introducing knowledge into the discussion, and prompting higher-order thinking involving analysis, synthesis and evaluation. Other participants asked fewer questions, often of a limited type. Some focused on low-order recall questions, often for the purpose of monitoring student learning.

Teacher talk (Knowledge) did not always feature the three types of knowledge: propositional, procedural and transactional, but it must be acknowledged that they may occur over a series of lessons. All participants did, however, use declaratives, signalling the presence in their practice of that process described by Hattie and Yates (2014) when children directly receive knowledge from adults. Six participants achieved a high level of alignment with this characteristic.

While seven participants achieved high levels of alignment with the Feedback characteristic, the remainder did not direct corrective feedback to the process and SRL levels. They were more likely to focus at the task level, indicating correct or incorrect student understanding without providing specific advice about improving process, acknowledging correct process or referring to strategies students could use to evaluate their learning choices.

With respect to the characteristics discussed above, statistical testing indicates that SES was either an insignificant factor in the result or that there was evidence of a small effect, from Cohen's *d* and Hedges' *g* size effect calculations (Table 41). These small effects applied to Feedback, Knowledge and Questioning. However, the large effect noted when the four lowest aligned participants (a cluster of four low SES participants) were compared with the high SES cohort indicates a need for broader investigation. In the case of these, the most variable characteristics in participant practice, the observational data generally indicates that other, lower leverage, strategies belonging to the characteristic were in place. Only in a small minority of instances was there no evidence of a characteristic in a participant's practice. The

difference was generally related to the absence of or a lower number of key strategies, often just one, as was the case with Process where clear information about success criteria was often neglected. The importance of that lack of attention to key strategies may be better explained if the fundamental structures that define the Explicit Teacher Construct are referred to and the critical parts that those specific strategies play in that model of learning are highlighted.

The GRR model encapsulates much of what is known about effective learning processes (see Teaching and Learning Theory). Scaffolding is the process by which the learner is moved through that model, which might alternatively be seen as a gradual removal of the scaffolding. The following discussion provides a hypothetical perspective of how the observed variability may impact on learning success. The functional view of each strategy or characteristic discussed in the context of the underpinning learning theory is based on the evidence discussed and referenced in Chapter 2.

Wiggins and McTighe (2005) suggest a simple litmus test of instructional quality that involves asking students to answer five questions: What are you doing? Why are you being asked to do it? What will it help you do? How does it fit with what you have previously done? How will you show that you have learned it? What Wiggins and McTighe are describing is the initial scaffold that clearly defines a student's starting point for the learning journey, the course that the journey will follow, and how the end point of the journey may be recognised. While most of these elements have been well represented in participant practice, the variable attention paid to success criteria is of critical importance: the end of the journey is not known. As the journey progresses, the scaffolding in place becomes redundant, is progressively withdrawn, and new scaffolding put in place. In general terms, the strategies identified as having been applied variably across the cohort are those that primarily serve to provide scaffolding for learning. Socratic questioning scaffolds a cognitive journey to

understanding. If the first question does not create a bridge, revised questions establish the starting point. Low-level questions establish simple connections while high-level questions build the capacity to make complex connections.

Metacognition makes thinking visible for students and so scaffolds the development of their cognitive processes. It may be that since learning is largely thinking, metacognition has been able to demonstrate a significant contribution to learning outcomes. SRL largely equips students to seek scaffolding for themselves. Student dialogue is a source of peer scaffolding, drawing upon an accessible and easily understood discourse or sociolect, as long as the recommended structuring is able to maintain student focus on the learning.

Three types of knowledge, propositional, procedural and conditional, when used in concert, provide information to the student about the what, how and when of the learning, providing opportunities to build stronger connections.

The power of feedback is best manifested in timely corrective feedback that, to continue with the journey analogy, guides a straying student back to the most direct path to the journey's end by adjusting the scaffolding as needed. Well communicated, highly visible success criteria guide the journey and help the student to make sense of the adjustments.

Consistent with the notion that explicitness is to do with creating transparency or visibility of learning for students, this description of how these particular strategies function in the context of the learning model demonstrates how each strategy contributes to that end. Evidence that includes effect sizes (Hattie, 2009, 2012) indicates strong impacts on student outcomes from individual strategies. How they act in concert, adding, multiplying or diminishing overall effect, is a complex question. The implication is that the understanding of the effectiveness of explicit teaching may be greatly enhanced through the study of the relative effect on learning outcomes of a variety of patterns of individual practice that align with the construct.

Usefulness as a Descriptive Study

In the introduction, the relevance of explicit instruction was established, and questions were raised about the uncertainty of its nature and the lack of clarity about what type of explicit instruction the evidence base supported. Although the ultimate and most useful clarification would be to identify a specific set of explicit teaching behaviours that most influence positive student outcomes, such a hope may be unrealistic, given the variables at play across a complex construct; however, establishing a tighter set of parameters is achievable provided a suitably broad data collection is initiated. Coe et al. (2014) stated that

> there is some evidence that an understanding of what constitutes effective pedagogy—the method and practice of teaching—may not be so widely shared, and even where it is widely shared it may not actually be right. Hence it is necessary to clarify what is known about effective pedagogy before we can think about how to promote it. Unless we do that there is a real danger that we end up promoting teaching practices that are no more—and perhaps less—effective than those currently used. (p. 8)

An important endeavour of this study has been to clarify the nature of explicit teaching, particularly with reference to effectiveness, and to use the findings to present a construct. What cannot be established with certainty is the precise nature of the connections between the teacher behaviour set and the widely reported evidence of the efficacy of explicit teaching, which still primarily draws on Twentieth Century studies including Engelmann's 1998 *Project Follow Through* evaluation. Before progress towards the goal of establishing and promoting a set of explicit teaching behaviours that work to best effect can be made, it is necessary to devise a way of capturing the explicit practices that teachers currently employ in their teaching. This priority to describe what is, meaning current classroom practices, first of all provides a base for the control of further investigations into the relative effects of

combinations of teachers' pedagogical behaviours, and second, provides a sound data base for the design of interventions.

The CESE report (2014) emphasised the importance of the use of student data in instructional design, particularly interventions. It has been suggested that the key question for teacher effectiveness research is whether there are teacher behaviours associated with desired student outcomes, but given the strong evidence cited for the effectiveness of explicit teaching and many of its associated strategies (see Chapter 2), the key question should be *What, specifically, are they?* As that becomes clear, as in the case of any sound model of instructional design (Muijs et al., 2014), the key questions become *What knowledge does the target group already have and what should it be?*

Muijs et al. (2014) contended that 'state-of-the-art understandings about processes and conditions that promote student learning are typically not used to construct appropriate learning environments for their teachers' (p. 246). This discussion has reviewed an approach to describing teachers' explicit teaching behaviours, pointing to variations across the participant cohort in the application of key strategies. The resulting data has applications both for the design of professional learning interventions and for further research into effectiveness. This study addresses the teaching of literacy in the upper primary classroom as a vehicle to explore explicit teaching in a general sense. The resulting construct gives the appearance of being non-subject-specific: this suggests the methods of this primarily descriptive study may be applied in any subject area and at any level of schooling.

The advantages of restricting this relatively small study to a set grade level and single subject area, literacy, have been discussed in Chapter3: Methodology. Other studies of classroom interaction have adopted a much broader focus. Myhill's (2006) investigation of how classroom talk encourages cognition surveyed grades 2 and 5 across a number of subject areas. A more recent and extensive endeavour, the trialling of SEDA, an approach to the

analysis of educational dialogue (Hennessey et al., 2016), addressed a diversity of contexts ranging from pre-school to higher education, across multiple disciplines. Similarly, the Explicit Teaching Construct is suited to the collection of data across subjects and grade levels. The construct provides an authentic representation of the fundamental processes of human teaching and learning in social settings. The associated data collection and analytical tools can provide descriptive and comparative information about teachers in most regular settings. Although the data for some characteristics may vary dramatically according to some variables including student maturation, for example phase duration, the descriptive and statistical analysis tools need no adaptation.

The notion that descriptive data should be used to inform professional learning interventions has currency, as evidenced in the *Principal's Observational Checklist for Literacy Classrooms* developed through the Principals as Literacy Leaders (PALL) initiative in Australia (Dempster et al., 2012) and Creemers and Kyriakides' (2006) *Dynamic Model* which includes observational components (Coe et al., 2014). Coe et al. (2014) commented on the superiority of the theoretically grounded and empirically based model by Creemers and Kyriakides over other common approaches, qualities in common with the PALL instrument. In the review of the literature in this study, the establishment of connections to an evidence base and a sound theoretical framework has been a priority.

The approach to the collection and transcription of observational data taken in this study may well be suited to the collaborative-analytic model of professional learning described by Edwards-Groves (1998). The combination of research and professional learning has been a regular feature in studies of teacher-student classroom interaction (Alexander, 2017; Edwards-Groves, 1998; Flanders, 1961; Hughes, 1958).

Initiatory Value

Reference was made in the beginning of this chapter to the fact that the discourse that this study is located in is inextricably intertwined with professional learning. Hattie's (2009) statement, in part, explains a motivation for this study:

> A second argument we develop in relation to the limited impact of much professional development on outcomes for students is that it is typically divorced from the specifics of how to teach particular groups of students in a particular context with greater effect, and may be too general in nature and insufficiently specific and detailed (cited in Muijs et al., 2014, p. 246).

A useful aspect of this study relates to its applicability to further research to resolve the need for the specificity and detail described by Muijs et al. (2014), and to provide a basis for data-informed decision-making with respect to the promotion of explicit teaching practices. Hardman (2015) recommended that the investigation of classroom interaction through studies that adopted "mixed methods approaches, combining both quantitative and qualitative data, will help in the identification of promising variables and finding out what works by investigating the differences in learning outcomes in schools..." (p.13).

Further studies might profitably address a number of urgent questions including:

1. What is the evidence that teachers exhibiting particular patterns of explicit teaching strategies are more effective in achieving student learning outcomes?
2. Is there a relationship between a teachers' alignments with the Explicit Teaching Construct and their students' learning outcomes?
3. What are the influences that determine the specific explicit teaching practices of individual teachers?

4. How might the approach taken in this descriptive study be applied, using observational data in a collaborative-analytic model of professional learning, to strengthen explicit classroom teaching?
5. Would a broader investigation of the use of high impact explicit teaching strategies reveal differences in the experience of low and high SES students?

Summary

This discussion has considered the way in which the study's objectives have been met and what its findings may signify. The major results have been discussed as evidence of the appropriateness of the Explicit Teaching Construct and the methodology. Some consideration has been given to the relative usefulness of the individual characteristics in providing descriptive information. There has been consideration of the methodological limitations associated with efforts to achieve a balance between practical implementation and data validity. The discussion addresses the opportunities associated with the descriptive dimension of the study and suggests further investigation into the relationships between explicit teaching and student learning outcomes, and between teachers' explicit teaching practice and their professional learning.

The Explicit Teaching Construct provides a broad and comprehensive view of the set of teacher behaviours that constitute explicit teaching. It has been strongly connected to a Vygotskian model of human learning which has been progressively validated by research findings about human learning. In this thesis it has been connected both theoretically, with reference to research, and practically with a discussion of the complementary roles each characteristic plays in learning. These theoretical connections strengthen the understanding of how explicit teaching works.

The implication for practice is that the construct represents a holistic model of explicit teaching, reflecting a view which is prominent in the contemporary discourse, which at

one level might serve as a checklist for the teacher, or at another level, as a tool for a collaborative-analytic approach to professional development, or as a research instrument to provide the data necessary for planning pre-service teacher education or in-service interventions. The lack of precision evident in some planning of professional improvement has featured in discussion in this thesis.

This study presents a methodology in which an observational tool is supplemented by a mixed methods approach which allows the quantitising of qualitative data for the purpose of comparison. The large scale application of the approach to redress shortcomings in precise information about the relationship between explicit teaching and student outcomes may only be feasible under the auspices of a robust education policy focused on filling the knowledge gaps.

Chapter 6: Conclusion

Overview

This investigation was motivated by the ongoing public discourse that has raised questions about the effectiveness of the nation's classroom teachers in light of a perceived decline in the performance of Australian students over a number of years. Much of the discussion about improving student outcomes has focused on fostering explicit instruction.

The study addresses two fundamental concerns. The first is that judgements about classroom practice appear to be results-based, with remedies sought in evidence-based best practice, although accurate data about what teachers have been doing in the classroom rarely features. This study has aimed to develop a process of describing teachers' explicit teaching practice with precision, comparing individual practices and the influence of SES on its use. The second concern is the lack of clarity about the nature of explicit teaching and the essential elements in its approach that contribute to positive student outcomes. The Explicit Teaching Construct developed in the study reflects a view of explicit teaching strongly represented in the contemporary public discourse, thereby offering a basis for describing explicit teaching practice and investigating its efficacy.

This investigation was conducted in government primary schools in southern Tasmania. The study adopted a mixed methods approach as a suitable way to generate the level of description necessary to analyse, compare and contrast explicit teaching practices across a range of classrooms. It was the expectation that a diversity of practice would be evident, much as it was in Anstey's (1993a) study nearly two and a half decades earlier, and as implied in elements of the public discourse (Donnelly, 2015) with references to open classrooms, discovery learning and constructivism. This was not to be the case. The pedagogy consistently demonstrated in the practice of all twelve participants in the study was

fundamentally explicit in nature, well aligned with the structural and theoretical elements of the Explicit Teaching Construct.

The Explicit Teaching Construct was developed to reflect the concept of explicit teaching most relevant in the contemporary public discourse; however, the regular appearance of other perspectives, such as Direct Instruction and the dialogic classroom in the discourse, are a complicating factor. The construct provides clarification, relevance to emerging policy and literature addressing evidence-based best practice, and a broad and inclusive framework of explicit teaching behaviours that can be understood within the strongly evidenced Vygotskian theory of teaching and learning.

The development of the Explicit Teaching Construct addressed the first inquiry question, *How can explicit teaching practices in literacy lessons of primary school teachers be described?* The Literature Review was oriented towards the identification of a set of common characteristics that represented an explicit approach to classroom teaching. A set of 13 characteristics was organised into a construct or framework that served as the set of operationally defined behaviours, the Explicit Teaching Observation Set, for the collection of observational data that would become the major data set for the consideration of inquiry questions 2 and 3.

Observation constituted the primary instrumentation for the study, collecting mainly qualitative and some quantitative data in the form of tallies and measures of phase duration. This data was organised into individual participant profiles after it was quantitised with reference to a three-point scale of alignment that compared individual teacher practice against characteristic descriptors. A second instrument, a semi-structured interview, provided data that established context and typicality of the observation. The data analysis utilised descriptive statistics and, for inference testing, t-tests, Cohen's *d* and Hedges' *g*.

Findings from the Study

1. How can explicit teaching practices in literacy lessons of primary school teachers be described?

The three parts to the process of describing explicit teaching practices included the development of the Explicit Teaching Construct, instrumentation for data collection, and the transformation of data into individual participant profiles. The participant profiles and aggregated data for SES cohorts provided the basis for the comparison of practices across the study cohort and between the two SES cohorts. In particular, the mixed method approach, transforming qualitative data into quantitative data, provided the basis for comparison and for statistical analysis to determine the significance of difference. The Characteristic Alignment Framework (see Appendix H) was key to the quantitising process.

While clear limitations to the depth of information accessed for some individual Explicit Teaching Characteristics has been noted, on balance the utility of the observational approach made it more appropriate than the alternative data collection approaches discussed in Chapter 5.

2. What are the similarities and differences in explicit teaching practice evident in the study sample?

The study produced strong evidence of a fundamentally explicit teaching pedagogy in the practice of all participants. Low-level alignment of practice with the Explicit Teaching Characteristics was infrequent, 5%. Very high levels of alignment across the full cohort, 94%–100%, were recorded for the characteristics of Monitoring, Focus, Curriculum, Structure, GRR and Clarity. The greatest variations in alignment were recorded within Student Dialogue, 69%, Process, 81%, Metacognition, 81% and Questioning, 81% and to a lesser extent in Feedback' 83%, Knowledge, 83% and Context 86%.

Explicit teaching lesson structures were consistently in evidence, with the core phases usually represented in an orthodox sequence. The organisation of learning across the cohort strongly reflected the GRR model, indicating the embedded nature of this approach in teaching practice. Some individual variations from cohort norms were noted with respect to phase sequencing and measures of phase duration. Each teacher's practice was generally consistent across the three observations, as noted with respect to lesson structure in the individual participant profiles presented in Chapter 4.

The analysis of the use of seven High-impact strategies revealed a greater level of variation between participants when compared with the overall characteristic alignment. The average alignment score, $M = 34.5$ ($SD = 2.65$), compared with the average high-impact strategy usage score $M = 23.9$ (adjusted for the purpose of comparison), ($SD = 9.75$), highlighted the variance, particularly given the differences in standard deviation (*SD*). Twenty-five percent of participants utilised less than half of the High-impact strategies, some of which had the most comprehensively documented evidence of a positive impact on student performance. Two of the strategies were missing from the repertoires of 50% of the participants, and another two were missing from the repertoires of a 33% of the participants.

3. Are there differences in the explicit teaching of literacy in low SES and high SES primary school classrooms?

In considering this question the point to note is the overall similarity in explicit teaching practices across the full cohort. This level of similarity might suggest little difference between practices in high SES and low SES classrooms, but while it was concluded that in one sense low SES students do not experience less explicit teaching than their high SES peers, they may experience a lower frequency of some explicit teaching strategies and not experience some High-impact strategies at all. The greater variability in

High-impact strategies found with respect to question 2 was skewed in favour of high SES students.

There is some evidence that low SES students are more likely to be asked low-order questions and high SES students to be asked high-order questions. There is also some evidence that low SES students may have shorter Independent Practice phases than high SES students.

Statistical testing for the two SES cohorts suggested a small effect. A closer examination identified a cluster of four low SES participants with the lowest individual alignment scores. When treated as a discrete group, testing for effect size indicated a very large effect. While the evidence does not conclusively support the conclusion that low and high SES students have a contrasting experience of explicit teaching as reported in earlier studies (Freebody, Ludwig & Gunn, 1995), it does suggest that a different outcome may result from a focus on the differential use of High-impact strategies in a more substantial study.

Significance of the Study

This study addresses a topical issue at the heart of the educational enterprise: teaching and learning in the classroom. It draws attention to a disconnect between data and response, where the treatment prescribed for a decline in student learning outcomes has focused on teacher practice without due attention to the precise nature of either the existing practice or the desired practice. The significant outcomes are:

- The study has opened the classroom door and painted a picture of the teacher at work in the classroom. In the introduction to this study the concerns about a lack of detail about what transpires inside classrooms has been discussed. This study addresses the issue of a paucity of information about what teachers do, raised throughout this thesis.

- The study clarifies the concept of explicit teaching, bringing it in line with the model of classroom teaching that has been espoused in policy, evidence-based best practice literature and professional learning initiatives. It clarifies the concept, the use of which in the public discourse is often accompanied by a lack of definition, ambiguity and confusion.
- The essential characteristics of explicit teaching are organised in a comprehensive and structured model of explicit teaching, the Explicit Teaching Construct, which is strongly connected to learning theory. The Explicit Teaching Construct and the Characteristic Alignment Framework are key artefacts that facilitate the collection and transformation of the descriptive data presented in this study.
- The study has demonstrated an effective process for the description of explicit teaching practice for the purposes of evaluating classroom practice and planning professional learning interventions. It allows for distinction between component strategies, and provides a measure of the level of implementation of those strategies in individual practice.
- The study identified a high level of alignment between teacher practice and an explicit teaching pedagogy in the Tasmanian government school participant cohort. In application the Explicit Teaching Construct produced twelve distinct participant profiles, demonstrating a degree of discrimination directly applicable to a number of educational improvement processes which include: the diagnostic assessment of teacher repertoire; the investigation of relationships between explicit teaching approaches and student outcomes; collaborative-analytic professional development.

- The study strikes a balance between pragmatism and descriptive detail, providing sufficient detail without entering into extreme complexity, and where appropriate

recording representative rather than exhaustive data. With individual practice generally proving consistent across all three observations, a meaningful data collection may be achieved from a suitably defined single observation.

- The study identified variability in the application of specific High-impact strategies within Explicit Teaching Characteristics, pointing to a potentially profitable line of future inquiry
- Although a small study, the consistency of explicit teacher practice is a significant finding given the tone of some public discourse. The results of the study have served to emphasise the need for further investigation in the interest of more certainty about the conditions that produce the best student outcomes.

The Descriptive and Initiatory Dimensions of the Study

The context of the study, a high-profile ongoing public discourse lacking reference to data concerning the teacher practices being questioned and lacking precision with respect to the pedagogy being advocated, highlighted the need for a relevant descriptive study, the potential value of such having been addressed by Sandelowski (2000). The substance of the study was the development of the process, the instrumentation, and the resultant description of the explicit teaching literacy practices of a cohort of teachers of grade 5 and 6 students in southern Tasmanian government primary schools. The generation of descriptive information proved to be robust, demonstrated in the picture of classroom practice that illustrates a commitment to explicit teaching, and a differential adoption of the component strategies of explicit teaching.

The value of the study is enhanced by its conception as an initiatory study, the descriptive content providing a foundation for further inquiry into the nature of the explicit teaching form that is most effective in producing positive student outcomes. It provides a platform for investigations that develop an understanding of how teachers acquire specific

instructional strategies, the design of targeted professional learning interventions and the application of observational data to collaborative-analytic professional learning.

Future Extensions

Through the course of the study limitations become apparent in available information and in the resolution of key questions. The fundamental rationale for the study grew from deficits identified by educational commentators. The study directly addresses a set of key questions about explicit teaching and in so doing lays a foundation for building a more refined picture of its relationship with student outcomes. A number of other questions have emerged which may be worthy of consideration in the future:

Student perspectives

The observational data collection in this study largely relied on teacher behaviours; however, some characteristics, particularly Clarity, were judged in part by student behaviours. Those teacher behaviours associated with Clarity were drawn from studies which, as part of the identification process, surveyed student perception. The consistency of the depiction of teacher behaviours that promote clarity (Civikly 1992, Cruikshank 1985; McCrosky & Chesebro, 2001; Simonds, 1997) support the approach taken, given that it is the teacher behaviours that are surveyed rather than their effectiveness. Nevertheless, revisiting the conclusions of the earlier clarity studies, through student survey, may confirm or refine the operationalisation of this characteristic. Similarly, listening to the student voice with respect to other characteristics such as Curriculum, Feedback and Student Dialogue, may add valuable perspectives to the understanding of explicit teaching.

Dimensions of questioning

There is a clear consensus that asking questions is a crucial feature of explicit teaching and questions should be asked frequently, should include a mix of low and high order, and should be sequenced to develop cognition. While data are plentiful, establishing baselines is

challenging due to the multiplicity of approaches: all questions, questions to the whole class, and questions addressing the learning but not classroom management. Myhill (2006) formulated a comprehensive classification based on form and function and excluding rhetorical and illocutionary questions. She reported a relatively low number of questions related to higher order thinking, and low percentages addressing prior knowledge and learning. The average length of student utterances was a mere four words. Open questions drew longer responses from students. In a context where extended student responses have been linked to learning gains (Howe, Hennessy, & Mercer, 2018) the highest rates of questioning may be an indication of less effective teaching and the richest classroom dialogue may result in relatively fewer questions. Factual questions, used for a range of purposes including monitoring, drawing upon prior knowledge and reviewing procedural requirements also have an important place in the classroom. A broader survey of explicit classrooms may produce useful points of reference.

Aspects of disadvantage

The advantage of a more substantial survey of low and high SES explicit classrooms has been discussed; however, an extension of the approach used in this study is prompted by observations that classroom interaction is experienced differently according to achievement group (and gender) (Myhill, 2006; 2002). The clear achievement differences in the low and high SES cohorts investigated in this study are discussed in Chapter 3: Methodology. Strategies that encourage full participation, like ‘no hands up’ questioning (Rosenshine, 2012) were infrequently in evidence in this study. A supplementary survey of student participation through the collection of observational data, yielding respective rates of student participation may open a further avenue of inquiry.

Limitations of the Study

The study involved a small number of participants (N = 12) in one geographical region of a single jurisdiction (The Department of Education, Tasmania). Each SES cohort was smaller again (N = 6). Generalisations must be considered in this context, and the limitations of the significance of statistical analysis acknowledged. Quantification of observational data was the principal method of making participant comparisons. Descriptive data included frequency and percentages to accommodate the variations in lesson and phase duration. However, the association of some of the observation characteristics with particular phases, such as class questioning with Modelling or Reporting phases, requires that those phases are included in the observation, where they are a part of typical teacher practice. As it was, some lessons represented only a part of a learning sequence and were focussed on independent practice for the purpose of developing fluency or transferability. The introduction of a skill or new content was not present. In six cases, the three observations of the participants followed a consistent pattern. Observations for four participants included lessons that were largely independent practice, with the participant working with small reading groups. On three occasions, lessons were shortened due to special circumstances like a swimming programme or impromptu assembly. For two participants only one observation was of suitable length or content for inclusion in the study. Consequently, while the use of multiple observations of each participant may have served to reveal any regression to the mean effect, given the challenges of recruitment and scheduling, it did not appear feasible to organise further observations when these circumstances arose. The use of one suitable observation was the most practical way forward.

In common with many studies, both mixed and qualitative, some degree of inference was necessary in the management of data. In this study, different levels of inference were

associated with individual characteristics (Table 8). Higher levels of inference related to Teacher Clarity, which was determined by the presence of clarity-promoting strategies acknowledged in the literature; whether learning content was addressed at an appropriate level for students was inferred from teachers' references to prior learning and from student engagement with and response to the learning.

The observational data collection imposed limitations on the level of description that could be achieved with respect to individual characteristics, as discussed in Chapter 5. Of necessity, the creation of the tools in the instrumentation of the study required some arbitrary decision-making, not in the sense of random and uninformed but in the sense of being at the discretion of the researcher, who exercised informed best judgement. As products of the study, the key tools for the conduct of the study, the Explicit Teaching Construct and the Characteristic Alignment Framework, were products of that creative process. The utility of the tools may in part be judged by the outcomes of the study.

Although testimony from the participants asserts that observer effect is negligible, the question must be asked about the effect of the observer in such areas as a teacher's motivation to maintain focus and not be side-tracked by unanticipated events like a student's novel comment or behaviour, or to maintain a thorough and vigorous monitoring regime. Both these characteristics, Focus and Monitoring, were strongly evident in this survey at high levels of alignment. The claim has been made that we have seen inside the classroom door, suggesting the everyday classroom, but is that really the case? Such uncertainty must always be a limitation in studies such as this.

Recommendations

To build on the results of this study, in the interest of empowering decision makers in education in the work of improving learning outcomes for students, the following recommendations are made. Their purpose is to provide a stronger basis for data-informed

decision-making by generating information about existing classroom practices, the impact of specific forms of explicit teaching, and the influences that affect explicit teaching practices.

Recommendation 1:

A significantly wider sample of teachers across a range of education jurisdictions should be profiled in terms of the Explicit Teaching Construct in order to gain a stronger assessment of explicit instruction in the Australian classroom.

Recommendation 2:

Samples of teachers sharing defined explicit teaching profiles, including practitioners of Direct Instruction, should be identified within jurisdictions that maintain programs that monitor teacher effect on student gain through national standardised testing or other progressive standardised testing programs. This approach has the potential to identify the relative effect of different forms of explicit teaching.

Recommendation 3:

An investigation into whether, and how, individual explicit teaching practice varies according to learning area should be undertaken in order to survey the utility of the tools that have been trialled in the literacy classroom in this study. Such an investigation may establish a wider relevance, as suggested by the literature base that informed this study, or further define the process required to fully describe teacher practice.

Recommendation 4:

A supplementary inquiry into the means by which individual participants acquired the particular explicit teaching strategies identified in this study may contribute to the understanding of how professional practice is developed and may offer insights into the influences that result in the variations in the detail of practice as reported in this study, particularly with respect to the implementation of High-impact strategies.

Recommendation5:

The Explicit Teaching Construct should be trialled as tool in a collaborative-analytic approach to strengthening classroom teachers' explicit teaching repertoires.

Concluding Reflections

This study began with the researcher's curiosity about a students' comments that good teachers explained things. The comments were often about mathematics teachers. It was interesting to note that Sullivan, Clark and O'Shea (2010), in a survey of student opinion about what is desirable in a mathematics lesson, found that clear explanations were most desirable.

The primary factor that influenced the adoption of explicit teaching as the most suitable context for the investigation of the teacher's role in making learning clear for students was the association of the concept of teacher clarity with the broader concept of explicit teaching within the relevant literature. During the course of this study, the researcher found, through numerous incidental conversations with academic staff, fellow research students, school principals, and teachers including study participants, a wide variety of views about what constituted explicit teaching. Frequently it was considered to mean Direct Instruction or a teacher-centred, highly directive pedagogy.

The broad view taken (Hattie, 2009; Luke, 2013) was the product of an extensive review of the literature. The resulting construct was not envisaged simply as an exhaustive compilation of every strategy that was promoted in the literature, but rather a structured representation of a pedagogical approach to implementing a coherent theory of teaching and learning. While a cursory review of the Explicit Teaching Construct generated for this study may give the appearance of a framework that is not remarkably different from other frameworks cited (Anstey, 1998; Archer & Hughes, 2012; Hempenstall & Buckingham, 2016) (see Chapter 2), characteristic selection was carefully considered in terms of an

underpinning theory. The 13 characteristics of explicit teaching can best be understood through the ways they represent the processes and principles described by that theory.

Three interrelated processes represent the theory of learning and its translation into a theory of teaching and learning: scaffolding and Zone of Proximal Development (Chalkin, 2003), Gradual release of responsibility (Brown & Campione, (1994), and learning goals, monitoring and feedback (Hattie & Timperley, 2007; Sadler, 1989). Evidence was cited to support this view of how humans learn and the role that adults play (Hattie & Yates, 2014), and to highlight the effectiveness of this teaching approach (James & Pollard, 2011; Kirschner et al., 2006).

The idea of explaining, like the idea of being explicit, means imparting understanding. One definition gives the meaning of 'explain' as 'to make clear to someone by describing it in more detail or revealing relevant facts' (English Oxford Living Dictionary, 2018). The suggestion that *more detail* may be necessary or that information may need *revealing* in order for something to be explained suggests monitoring student understanding in the teaching context in order to identify the need for explanation. Many of the 13 characteristics identified the information that should be explained to students.

Of particular importance in the construct was the acknowledgement of student dialogue and the teacher's role in promoting this characteristic (Number 10: Student Dialogue) in the classroom. Student dialogue is not commonly featured in reviews of explicit teaching, but is the third partner in classroom scaffolding, along with the teacher and materials (Kim & Hannafin, 2011). The teacher fosters student voice through carefully managed dialogue, provision of opportunities to ask and answer questions, and encouragement to ask questions.

The *Levels of Alignment* drew upon evidence of best practice as one of the criteria used for the discrimination of degrees of implementation of characteristics in individual teacher practice. It may be fair to describe the practice of a teacher with a higher alignment as having

a more developed version of explicit teaching. The evidence is insufficient to be certain t that such a teacher is more effective than others, but the capacity to generate teacher profiles opens a door to studies that may provide that evidence.

This study has demonstrated an approach to gathering the dense information necessary for the formulation of hypotheses by which to test and potentially develop a fuller understanding of the nature of those explicit teaching strategies that promote the best student outcomes.

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Appendix A: A Sample of Newspaper Reports Featuring the National Decline in School Performance

Headline	Date	Publication
School literacy stagnates.	14 September 2013	The Weekend Australian
Our kids twice as likely to be behind in maths learning.	5 December 2013	The Australian
Top students lead fall in standards.	3 September 2013	The Hobart Mercury
Lessons in Shanghai school system.	15 March 2014	The Australian Financial Review
Schools lessons in excellence.	22 February 2014	The Weekend Australian
Whole-of-school approach needed to lift levels.	4 July 2014	The Australian
Six ways Australia's education system is failing our kids.	16 March 2015	The Daily Mercury
OECD education rankings show Australia slipping, Asian countries in the lead.	15 May 2015	The Sydney Morning Herald
Wake-up call: Australian students fall behind Kazakhstan in maths and science rankings.	23 November 2016	The Sydney Morning Herald
PISA results: Australian student's maths, science and reading in long-term decline.	6 December 2016	The Guardian, Australian Edition
PISA results show further decline in Australia's education ranking	6 December 2016	The Canberra Times
Australia's 'tolerance of failure' behind declining PISA results says test co-ordinator.	28 September 2017	The Sydney Morning Herald
The clues that could explain our falling PISA marks	7 December 2017	The Sydney Morning Herald
No competition with Singapore students	27 September 2017	The Australian

Appendix B:

Anstey's Explicit Instruction from the Literature in Juxtaposition with the Characteristics from an Explicit Group of Lessons.

Adapted from Anstey (1998)

Characteristics of Explicit Instruction from the Literature	**Characteristics from an Explicit Group of lessons**
1. Functional and goal-directed:	Teacher talk included explanation of utility of skill to be learned.
	Teacher talk emphasised cognitive and Meta-cognitive aspects of skill being learned.
	Use of focus phase to identify expected learning outcomes.
	Transfer phase activity emphasised functional aspects of skill being learned.
2. Seen to be relevant to life in a variety of contexts:	Activity in transfer phase used skill in context.
	Explanations by teacher in focus and identifying phases emphasised utility of skill.
3. Develop and enhance the concept of literacy, not just skills:	Activity in transfer phase used skill in context.
	Explanations by teacher in focus and identifying phases emphasised utility of skill.
4. Contain explanations and demonstrations by the teacher which give propositional, procedural and conditional knowledge:	Characteristics of teacher talk emphasise the three types of knowledge through high proportions of talk about cognitive and meta-cognitive activity during explanation and demonstration of skills in identifying phases
	Specific use of identifying phase prior to students attempting to use the skill in practice and transfer phases aids acquisition of three types of knowledge.
	Use of declaratives rather than question and answer when imparting information in the identifying phase
5. Incorporate practice, adaptation and transfer of the strategy or skill was explained and demonstrated through activities which facilitate and encourage self-monitoring:	Structuring of lesson to provide practice and transfer of skill in phases immediately following the identifying phase where the skill was explained and demonstrated.
	Use of report phase immediately after each practice and transfer phase to clarify student problems.
	Use of interactive talk (question and answer) during report phase in order to address student problems.
	Strategic use of review phase.

6. Acknowledge students social context outside the classroom in the selection of content and materials:	Selection and strategic use of teaching aids and worksheets. Choice of activity in transfer phase.
7. Use materials which resemble a variety of real-life situations and contexts in which the skills or strategies might be used:	Teacher-made teaching aids and worksheets used situations from local context for practice and transfer of skills

Appendix C: Teacher Clarity Descriptive Frameworks

Simonds (1997)	**Cruikshank (1985)**
Teacher Clarity Report (Adaptation)	Teacher Clarity Self Inventory (Adaptation)
Is clear when presenting content. Uses examples when presenting content.	(a) Orient and prepare students for what is to be taught.
Relates examples to the concept being discussed.	(b) Communicate content so that students understand.
Uses the board, transparencies, or other visual aids during class.	(c) Provide illustrations and examples.
Gives previews of material to be covered.	(d) Demonstrate.
Communicates classroom processes and expectations clearly.	(e) Use a variety of teaching materials.
Defines major/new concepts. Prepares students for the tasks they will be doing next	(f) Teach things in a related, step-by-step manner.
Prepares students for exams. explains how we should prepare for an exam Provides rules and standards for satisfactory performance.	(g) Repeat and stress directions and difficult points.
Communicates classroom policies and consequences for violation.	(h) Adjust teaching to the learner and topic.
Points out practical applications for coursework.	(i) Cause students to organize learning in meaningful ways.
Provides students with feedback of how well they are doing.	(j) Provide practice.
Describes assignments and how they should be done. Asks if we know what to do and how to do it.	(k) Provide standards and rules for satisfactory performance.
Defines major/new concepts Gives summaries when presenting content. Stresses important points. Stays on topic.	

Appendix D: Letter to Principals (e-mail)

Recruitment e-mail to PRINCIPALS (DOE)

Dear <name of Principal>

After 17 years as a DoE principal I retired at the end of last year, but that change has not diminished my interest in education, particularly teaching and learning. I am currently pursuing a doctoral study in education, unencumbered by the weighty responsibilities of the principalship. Through my research study I aim to describe the strategies that classroom teachers use to provide clarity for students about their learning in Literacy. The study is being conducted under the supervision of Dr Belinda Hopwood and Associate Professor Karen Swabey from the University of Tasmania.

The purpose of this study is to explore the current practices of classroom teachers in the area of Literacy with respect to explicit teaching. For this purpose explicit teaching is viewed as the activities and strategies employed by the teacher to promote clarity for students about their learning. Given the national and international attention that teaching has attracted with attendant calls for a more explicit approach to teaching, this study aims to provide precision about what teachers already do in their classrooms and how we might describe the diversity of practice.

I am seeking to enlist twelve 5/6 class teachers, who are at least in their fourth year of classroom teaching. Their participation would involve three observations of Literacy lessons, each of 45 to 60 minutes duration over a period of no more than two weeks and a post-observation interview of no more than 30 minutes duration. Further data would be collected through a semi-structured interview following the first observation and brief communications following the subsequent observations. The period of the teacher's involvement may be as short as three days.

The attached Teacher Participant Information Sheet provides more detail about the study and all that would be entailed in participation. I believe that data that provides some precision about the diversity of teacher practice in the area of explicit teaching can be useful. Although the identity of participating teachers and schools will be completely confidential, the aggregated results may be of interest to participating teachers and to principals who collect their own data through 'walk throughs' and more formal processes.

If you would be happy for teachers from your school to participate, please pass on the attached information sheet to your 5/6 teachers. If any teachers are willing to participate I will contact them, arrange consent for both the school and individual teachers, and negotiate a mutually acceptable schedule that will minimise any impact on the work of the school.

Teacher participation is purely voluntary and confidentiality and anonymity are assured.

I would be ever so grateful if you would pass the information on and invite the relevant staff to participate.

Kind regards,

Anker

Mob.

Appendix E: Teacher Participant Information Sheet

Locked Bag 66 Hobart

Tasmania 7001 Australia

Phone (03) 6226 2546 Fax (03) 6226 2569

www.utas.edu.au/educ

Teacher PARTICIPANT INFORMATION SHEET

TITLE: An examination of explicit teaching in Literacy in the contemporary classroom.

UNIVERSITY OF TASMANIA

Invitation

You are invited to participate in a research study which aims to describe the strategies that classroom teachers use to provide clarity for students about their learning in Literacy. The study is being conducted as part of a doctoral study by Anker Fuglsang under the supervision of Dr Belinda Hopwood and Associate Professor Karen Swabey from the University of Tasmania.

'What is the purpose of this study?'

The purpose of this study is to explore the current practices of classroom teachers in the area of Literacy with respect to explicit teaching. For this purpose explicit teaching is viewed as the activities and strategies employed by the teacher to promote clarity for students about their learning. Given the national and international attention that teaching has attracted with

attendant calls for a more explicit approach to teaching, this study aims to provide precision about what teachers already do in their classrooms and how we might describe the diversity of practice. Some of the contextual data collected may provide indicators of those factors that influence the practice of individual teachers.

An approach to profiling a teacher's practice in terms of explicit teaching strategies provides an opportunity to make choices between targeted and general professional learning interventions at a number of levels and also opportunities for the evaluation of the relative contributions to student outcomes that can be associated with specific explicit teaching strategies.

Why have I been invited to participate in this study?'

You are eligible to participate in this study because you are:

- a 5/6 classroom teacher with responsibility for teaching Literacy;
- Have completed at least three years of classroom teaching.

What will I be asked to do?

As a participant in this research, you will be asked to assist the researcher to gather data about your normal teaching practice through classroom observation and interview over a period of up to two weeks. Participation in this research will require you to:

- Participate in three classroom observations of Literacy lessons, each from about 45 to 60 minutes in duration over a period of up to two weeks. Observations may be completed in as little as three days;
- Participate in three post-observation, 30 minute semi-structured interviews with the researcher at a convenient time following each observation to provide background information about yourself and contextual information about the lesson;
- Permit the audio recording of the observations so that the researcher can verify data. The recordings will be erased after data collection and verification.

- Permit the audio recording of the semi-structured interview and verify the transcript which will be e-mailed to you shortly after the interview;
- It is anticipated that the data collection will begin in either Term 4, 2015 or Term 1 2016, at a mutually convenient time.

Are there any possible benefits from participation in this study?

The main possible benefit for a participant in the study is the opportunity to compare individual practice with that of the participant group when the study is published. Neither individual teachers nor individual schools will be identifiable from the report of the study.

The overall benefit of this study will be the availability of descriptive data about current explicit teaching practice in a sample of Tasmanian government schools, including the range and application of explicit teaching strategies.

Are there any possible risks from participation in this study?

There are no specific risks anticipated with participation in this study.

What if I change my mind during or after the study?

You may withdraw from the study at any time and you may do so without providing an explanation.

Your data can be withdrawn up until thirty days after of its collection.

What will happen to the information when this study is over?

Surveys, hard copies of interview transcripts and audio files will be stored on the Hobart campus of the University of Tasmania in a locked cabinet, accessible only by the researchers. Your name and other identifying information will be removed from these documents. Computer files will be password protected and stored on a secure server at the Faculty of Education, Hobart campus. After a five year period, all information will be

shredded and computer files deleted. All information collected by the researchers will be treated confidentially.

How will the results of this study be published?

After the completion of data collection early in 2016, the researchers will provide a summary report of the data for the participants. The results from this research will also be published in education journals.

What if I have questions about this research?

If you would like to discuss any aspect of this study please feel free to contact Anker Fuglsang anker.fuglsang@utas.edu.au. He will be happy to discuss any aspect of the research with you.

This study has been approved by the Tasmanian Social Sciences Human Research Ethics Committee. If you have concerns or complaints about the conduct of this study, please contact the Executive Officer of the HREC (Tasmania) Network on +61 3 6226 6254 or e-mail human.ethics@utas.edu.au. The Executive Officer is the person nominated to receive complaints from research participants. Please quote ethics reference number [H15469].

Appendix F: Teacher and Principal Consent Forms

Locked Bag 66 Hobart

Tasmania 7001 Australia

Phone (03) 6226 2546 Fax (03) 626 2569

www.utas.edu.au/educ

Teacher CONSENT FORM

An examination of explicit teaching in Literacy in the contemporary classroom.

1. I agree to take part in the research study named above.
2. I have read and understood the Information Sheet for this study.
3. The nature and possible effects of the study have been explained to me.
4. I understand that the study involves:
   - Three observations of Literacy lessons of 45 to 60 minutes duration over two weeks;
   - A face to face meeting prior to observation if desired;
   - Three semi-structured post-observational face to face interviews (duration no more than 30 minutes) to collect basic teacher information and lesson context information following the first observation.
5. I understand that participation in this research involves no foreseeable risks

6. I understand that all research data will be securely stored on the University of Tasmania premises for five years from the publication of the study results, and will then be destroyed.
7. Any questions that I have asked have been answered to my satisfaction.
8. I understand that the researchers will maintain confidentiality and that any information I supply to the researchers will be used only for the purposes of the research.
9. I understand that the results of the study will be published so that I cannot be identified as a participant.
10. I understand that my participation is voluntary and that I may withdraw at any time without any effect.

If I so wish, I may request that any unprocessed data I have supplied be withdrawn from the research.

Participant's name:

_____

Participant's signature:

_____

Date: _____

Statement by Investigator

☐ I have explained the project and the implications of participation in it to this volunteer and I believe that the consent is informed and that he/she understands the implications of participation.

If the Investigator has not had an opportunity to talk to participants prior to them participating, the following must be ticked.

☐ The participant has received the Information Sheet where my details have been provided so participants have had the opportunity to contact me prior to consenting to participate in this project.

Investigator's name: ***Anker Fuglsang***

Investigator's signature:

Date:

Locked Bag 66 Hobart

Tasmania 7001 Australia

Phone (03) 6226 2546 Fax (03) 626 2569

www.utas.edu.au/educ

PRINCIPAL CONSENT FORM

An examination of explicit teaching in Literacy in the contemporary classroom.

1. I agree for my school to be involved in the research study named above.
2. I have read and understood the Information Sheet for this study.
3. The nature and possible effects of the study have been explained to me.
4. I understand that the study involves teachers of 5/6 classes participating in:
   - Three observations of Literacy lessons of 45 to 60 minutes duration over two weeks;
   - A face to face meeting prior to observation if desired;
   - Three semi-structured post-observational face to face interviews to collect basic teacher information and lesson context information following the first observation.
5. I understand that participation in this research involves no foreseeable risks
6. I understand that all research data will be securely stored on the University of Tasmania premises for five years from the publication of the study results, and will then be destroyed.

7. Any questions that I have asked have been answered to my satisfaction.
8. I understand that the researchers will maintain confidentiality and that any information I, or my staff supply to the researchers will be used only for the purposes of the research.
9. I understand that the results of the study will be published so that none of my staff and students can be identified as a participant.
10. I understand that my schools' participation is voluntary and that I may withdraw my school's involvement at any time without any effect.

    If I so wish, I may request that any unprocessed data I have supplied be withdrawn from the research.

Principal's name: _____

Principal's signature: _____

Date: _____

Statement by Investigator

☐ I have explained the project and the implications of participation in it to this volunteer and I believe that the consent is informed and that he/she understands the implications of participation.

If the Investigator has not had an opportunity to talk to participants prior to them participating, the following must be ticked.

The participant has received the Information Sheet where my details have been provided so participants have had the opportunity to contact me prior to consenting to participate in this project.

Investigator's name: ***Anker Fuglsang***

Investigator's signature:

Date:

Appendix G: Semi-Structured Post-Observation Teacher Interview

Part A: Explanation of purpose and process regarding audio record and transcript.

Part B: Participant information

1. Age bracket (21–30; 31–40; 41–50; 51+)
2. Teaching experience
3. Previous schools and roles
4. Qualifications and institutions
5. Participation in commonwealth funded literacy programs (National Partnership and Raising the Bar, Closing the Gap) if relevant
6. Professional development that has shaped current practice

Part C: Lesson Context

(These are discussion starters that may lead to elaboration)

1. Does this lesson relate or connect to any previous lessons and following lessons? If so in what ways?
2. Do you think that this lesson was typical of your approach to teaching?
3. Was there anything that you did that was different from what you normally do in class?
4. Were there things that you characteristically do that were missing from your lesson?
5. Was student participation and behaviour typical?
6. Do you think there was any impact on students or yourself arising from having an observer in the class?
7. Any other comments?

Transcript of audio record to be forwarded to participant for verification within 24 hours.

Appendix H: Characteristic Alignment Framework

Levels of Alignment: Characteristic 1 – Structure	
Low	Clear phases may not be identifiable. Phase sequencing may be irregular.
Medium	Phases are generally identifiable and in practice, although with some variations in sequence, some omissions and some underdevelopment of individual phases.
High	Five core phases are usually in place and sequential; The Focus phase is well developed; Reporting and Review phases are a regular feature.
Levels of Alignment: Characteristic 2 – Gradual Release of Responsibility (GRR)	
Low	Core components of the GRR model may be missing. Modelling and guided practice may not lead to independent practice. Either modelling or guided practice may be missing from the sequence.
Medium	The GRR model is in evidence although the phases may not be strongly connected and weak teacher modelling may be supplemented by guided practice.
High	The GRR model is clearly evident through a strongly connected 'I do, we do, you do' sequence, commencing with teacher modelling and leading to independent practice.
Levels of Alignment: Characteristic 3 – Context	
Low	Little information is provided about utility, application and learning connections.
Medium	Some information is given about utility, real-world applications and connections to other learning, but all areas are not necessarily covered.
High	The utility of the learning and relevance in real-world situations is usually clearly explained. Strong connections are made with other learning.
Levels of Alignment: Characteristic 4 Process	
Low	Little information may be given about learning purposes and success criteria may not be clear.
Medium	Some information is given about learning objectives and learning procedures while success criteria may be inferred or described through feedback
High	Clear and detailed information is provided about the learning intention, the learning procedure and success criteria.
Levels of Alignment: Characteristic 5 – Monitoring	
Low	Checking for understanding during guided practice is infrequent and desk work supervision is irregular with low interaction with students.
Medium	The teacher checks for understanding sometimes during guide practice and monitors desk work, providing feedback. Sampling procedures may not ensure that the understanding of all students is monitored, nor be sufficient to adjust instruction during guided practice.
High	The teacher checks for understanding during guided practice and adjusts instruction accordingly. The teacher supervises deskwork, monitoring and providing feedback. The teacher uses a range of monitoring strategies that indicate the level of understanding of all students.

Levels of Alignment: Characteristic 6 – Feedback	
Low	Feedback is largely at the task level, is not regularly provided for work in progress and rarely specifies process.
Medium	Timely, affirmative, corrective and instructional feedback is provided for student responses to questions, completed work and work in progress. Feedback primarily addresses the task and process levels and may not regularly specify processes.
High	Timely, affirmative, corrective and instructional feedback is provided for student responses to questions, completed work and work in progress. Feedback is regularly given at process and SRL levels, prompts elaboration and clearly specifies processes.
Levels of Alignment: Characteristic 7 – Knowledge	
Low	Teacher talk may make little use of declaratives or omit specific types of knowledge, sometimes in favour of propositional knowledge.
Medium	Teacher talk will include some declaratives. Cognition, metacognition and propositional, procedural and conditional knowledge will not always be represented in teacher talk in a balanced way.
High	Teacher talk includes frequent declaratives. It includes cognition and metacognition and will present a balance of propositional, procedural and conditional knowledge.
Levels of Alignment: Characteristic 8 – Metacognition	
Low	Metacognition and ‘thinking aloud’ infrequently in evidence.
Medium	Metacognition, SRL strategies and ‘thinking aloud’ sometimes are featured in classroom dialogue and processes.
High	Metacognition is embedded in classroom talk which features regular ‘thinking aloud’. The development of SRL is embedded in classroom talk and in classroom processes.
Levels of Alignment: Characteristic 9 – Questioning	
Low	Questioning may take place, but questions are generally of a low order.
Medium	The rate of questioning is moderate, generally between one question per 2 to 4 minutes. There is a mix of questions, however high-order questions are clearly less frequent than lower-order questions.
High	Questions are frequently asked during instruction at a greater overall rate than one question per 3 minutes. The mix of questions contains an approximately even amount of high- and low-order questions. Socratic questioning involves the use of sequences of questions in a purposeful order.
Levels of Alignment: Characteristic 10 – Student Dialogue	
Low	Students rarely engage in group work or engage in loosely structured group work.
Medium	Students sometimes engage in group work with a clear learning focus and the opportunity to share ideas. Student questions may be redirected to peers.
High	Students regularly engage in dialogue through planned and highly structured group work that emphasises sharing ideas. Student questions may be redirected to peers.

Levels of Alignment: Characteristic 11 – Clarity	
Low	The teacher generally provides explanations, directions and learning information to assist students to understand what is required of them. Redirection and clarification is often needed. Structures, concept attainment strategies and suitable materials that provide clarity may not be evident.
Medium	The teacher generally gives clear explanations, directions and learning information that enable students to understand what is required of them. Structures and processes, concept attainment strategies and a variety of materials are sometimes used to provide clarity. Students seek clarification.
High	The teacher gives clear explanations, directions and learning information that enable students to understand what is required of them. Clear structures and processes, strong concept attainment strategies and a variety of materials matched to student levels of understanding are used to provide clarity. Students are confident to seek clarification.
Levels of Alignment: Characteristic 12 – Focus	
Low	The lesson focus may shift during the course of the lesson. Learning connections, including relationships with key concepts may not be evident.
Medium	The lesson is generally focused on the learning intention. Sometimes diversions or discontinuity may be evident. Learning connections are made including the identification of associated concepts.
High	The teacher maintains a strong focus on the learning intention throughout the lesson. Learning connections are strongly established including the presentation of the focus in the context of key learning concepts.
Levels of Alignment: Characteristic 13 – Curriculum	
Low	Learning is usually drawn from a sequential curriculum. Student learning needs compete with other considerations such as required curriculum coverage in the selection of learning outcomes. Knowledge and skills are not always presented in a series of logical steps, progressing from simple to more complex. Prerequisite learning and consolidation may not be acknowledged.
Medium	Learning is always drawn from a sequential curriculum, with concepts generally matched to student learning needs and knowledge and skills presented in a series of logical steps, progressing from simple to more complex.
High	Learning is always drawn from a sequential curriculum, with concepts matched to student learning needs and knowledge and skills presented in a series of logical steps, progressing from simple to more complex. Prerequisite learning is clearly established. Learning is consolidated before progressing.

Appendix I: Summary of Explicit Teaching Characteristics Evident in Participant Practice

[Observations about each characteristic used by the teacher are recorded in point form in the second column.]

Number	Explicit Instruction Characteristic	Features of Teacher Practice
1.	Structure: Instruction is organised into sequential phases.	
2.	GRR: A gradual release of responsibility model.	
3.	Context: Information about purpose, utility, relevance and connection to learning.	
4.	Process: Information about learning goals and success criteria.	
5.	Monitoring: Teacher monitors and responds with review, clarification and instruction.	
6.	Feedback: Feedback that is instructional and timely is provided.	
7.	Knowledge: Teaching includes: cognition and metacognition; propositional, procedural and conditional knowledge; and declaratives.	
8.	Metacognition: Metacognition and Self-regulated Learning skills are taught.	
9.	Questioning: Frequent Questions include a mix of high- and low-order questions.	
10.	Student Dialogue: Students engage in well planned and structured dialogue.	
11.	Clarity: The teacher communicates with clarity.	
12	Focus: Skills are related to concepts. Focus maintained.	
13	Curriculum: Sequential curriculum.	

Appendix J: Bloom's Taxonomy Levels of Questions: Original and Revised Versions Compared

Number	Original Version	Revised Version
1	Knowledge	Remembering
2	Comprehension	Understanding
3	Application	Applying
4	Analysis	Analysing
5	Synthesis	Evaluating
6	Evaluation	Creating

(Bloom's Taxonomy, n.d.: Anderson & Krathwohl, 2001)